# JVC

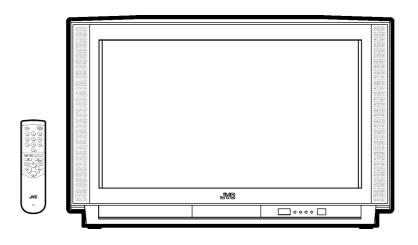
# SERVICE MANUAL

**COLOUR TELEVISION** 

## AV32H20EUS AV28H20EUS AV28H20EUB

BASIC CHASSIS

MF II



InteriArt Natural Vision T-VIINK

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#### **SPECIFICATIONS**

ltem	Content			
item	AV32H20EUS	AV 28 H20 EUS / AV 28 H2 0E UB		
Dimensions ( W × H × D ) Mass	855mm×550mm×568mm 53.6kg	780mm × 509mm × 499mm 40.2kg		
TV RF System	CCIR (B/G,D/K,I,L,L')			
Colour System	PAL / SECAM / NTSC (Only in EXT mode)			
Stere o System	A2 (B/G,D/K)/ NICAM (B/G,I,D/K,L)			
Teletext System	FLOF (Fastext) TOP (German system) WST(W orld Standard system)			
Receiving Frequency VHF	47MHz ~ 470MHz			
UHF	470MHz ~ 862MHz			
French CAT V	116MHz ~ 172MHz / 220MHz ~ 469MHz			
Intermediate Frequency VIF Carrier SIF Carrier	38.9 MHz (B/G, I ,L)/ 33.95 MHz (L') 33.4 MHz (5.5 MHz:B/G) / 32.9 MHz (6.0 MHz:I)/ 32.4 MI	Hz (6.5MHz:L, D/K)/ 40.45MHz (6.5MHz:L')		
Colour Sub Carrier Freq. PAL	4.43MHz			
SECAM	4.40625MHz/4.25MHz			
NTSC	3.58MHz / 4.43MHz			
Power Input Power Consumption Aerial Input Term	220 – 240 V AC, 50Hz 187W(Max) / 138W(Avg), standby : 2.6W 75 Ω unbalanced, Coaxial	220 – 240 V AC, 50Hz 178W(Max) / 125W(Avg), standby : 2.6W		
Picture Tube	Visible size: 76cm, Measured diagonally	Visible size: 66cm, Measured diagonally		
High Voltage	+1kV 31.0kV <sup>-1.5kV</sup> (at zero beam current)			
Speaker	(16cm×4cm) oval type ×2			
Au dio Output	7.5W + 7.5W			
EXT-1/EXT-2/EXT-3 (Input / Output)	21-pin Euro connector (SCART socket)			
S / Video	Y: 1VP-P PO SITIVE (Negative sync Provided, when to C: 0.3VP-P (Burst signal, when terminated with 75 $\Omega$ )	erminated with $75\Omega$ )		
EXT-4 (Input) Video Au dio (L/R) S / Video  1/Vp-p 75 Ω (RCA pin jack) 500mVrms( -4dBs ), High Impedance (RCA pin jack ) Y: 1/Vp-p PO SITIVE (Negative sync Provided, when terminated with 75 Ω) C: 0.3/Vp-p (Burst signal, when terminated with 75 Ω)				
AUDIO OUT (Variable)	0~1Vms, Low Impedance (RCA pin jack×2)			
Headphone jack	Stereo minijack ( $\phi$ 3.5mm )			
Remote Control Unit	RM-C54H (AAA/R03 dry battery × 2) : (AV32H20EUS, RM-C50(AAA/R03 dry battery × 2) : (AV28H20EUB)	AV28H20EUS)		

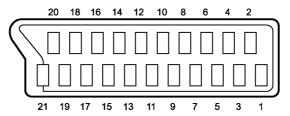
Design & specifications are subject to change without notice.

#### ■21-pin Euro connector (SCART socket) : EXT-1 / EXT-2 / EXT-3

(P-P= Peak to Peak, B-W= Blanking to white peak)

Pin No.	Signal Designation	Matching Value	EXT-1	EXT-2	EXT-3
1	AUDIO R output	500mVrms(Nominal), Low impedance	O (TV OUT)	O (LINE OUT)	NC
2	AUDIO R input	500mVrms(Nominal), High impedance	0	0	0
3	AUDIO L output	500mVrms(Nominal), Low impedance	O (TV OUT)	O (LINE OUT)	NC
4	AUDIO GND		0	0	0
5	GND (B)		0	0	0
6	AUDIO L input	500mVrms(Nominal), High impedance	0	0	0
7	B input	700mV <sub>B-W</sub> , 75Ω	0	0	NC
8	FUNCTION SW (SLOW SW)	Low: 0-3V, High: 8-12V, High impedance	0	0	0
9	GND (G)		0	0	0
10	SCL3		NC	0	NC
11	G input	700mV <sub>B-W</sub> , 75Ω	0	0	NC
12	SDA3		NC	0	NC
13	GND (R)		0	0	0
14	GND (Y <sub>S</sub> )		0	NC	NC
15	R / C input	R: $700 \text{ mV}_{\text{B-W}}$ , $75 \Omega$ C: $300 \text{ mV}_{\text{P-P}}$ , $75 \Omega$	O (only R)	0	O (only C)
16	Ys input	Low: 0 - 0.4, High: 1 - 3V, 75Ω	0	NC	NC
17	GND(VIDEO output)		0	0	0
18	GND(VIDEO input)		0	0	0
19	VIDEO output	1V <sub>P-P</sub> (Negative going sync), 75 Ω	O (TV)	O (LINE OUT)	NC
20	VIDEO / Y input	$1V_{P-P}$ (Negative going sync), 75 $\Omega$	0	0	0
21	COMMON GND		0	0	0

#### [Pin assignment]



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#### SAFETY PRECAUTIONS

- The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- 3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (Å) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.

Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE:  $(\bot)$  side GND, the ISOLATED(NEUTRAL): (→) side GND and EARTH: (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.

If above note will not be kept, a fuse or any parts will be broken.

- If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
- 6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- 7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10 № 2W resistor to the anode button.
- 8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

#### Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock

#### (1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chass is should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.

(..... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

This method of test requires a test equipment not generally found in the service trade.

#### (2) Leakage Current Check

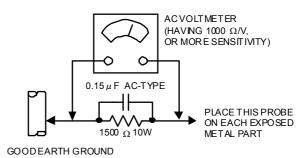
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

#### Alternate Check Method

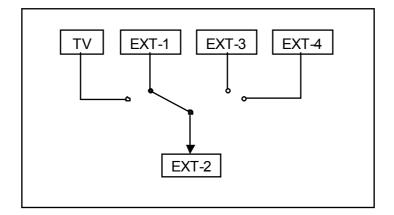
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a  $1500\Omega$  10W resistor paralleled by a  $0.15\mu\text{F}$  AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



#### **FEATURES**

- New chassis design enable use of an interactive on screen control.
- The TELETEXT SYSTEM has a built-in FASTEXT (UK system), TOP (German system) and WST (world standard system) system.
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism.
   In addition, BILINGUAL programs can be heard in their original language.
- Users can make VCR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.



#### **MAIN DIFFERENCE LIST**

⚠	Model Name Part Name	AV32H20EUS	AV28H20EUS	AV28H20EUB
	MAIN PWB ASSY	SMF-1401A-U2	SMF-1402A-U2	-
	POWER & DEF PWB ASSY	SMF-2401A-U2	SMF-2402A-U2	-
	CRT SOCKET PWB ASSY	SMF-3401A-U2	SMF-3402A-U2	-
	FRONT CONTROL PWB ASSY	SMF-8401A-U2	SMF-8402A-U2	-
Δ	FRONT CABINET ASSY	LC 10376-020A-U	LC 10662-023A-U	LC 10662-024A-U
Δ	DOOR	LC 20265-017A-U	<b>←</b>	LC 20 265-024A-U
⚠	POWER KNOB	LC30578-007B-U	-	LC30578-004A-U
⚠	REAR COVER	LC 10378-004B-U	LC10664-003B-U	LC 10664-001E-U
	JVC MARK	LC40354-003A-C	<b>←</b>	LC40354-001C-C
⚠	RATING LABEL	LC 20379-027A-U	LC20379-026A-U	LC 20 379-025A-U
	EURO LABEL	AEM1052-063-E	AEM1052-064-E	AEM1052-096-E
	REMOTE CONTROL UNIT	RM-C54H-1C	-	RM-C50-1C

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#### SPECIFIC SERVICE INSTRUCTIONS

#### DISASSEMBLY PROCEDURE

#### **REMOVING THE REAR COVER**

- 1. Unplug the power cord.
- Remove the 12 (28" models), 13 (32" model) screws marked A as shown in the Fig. 1.
- 3. Withdrawthe rear cover toward you.

#### **REMOVING THE CHASSIS**

- After removing the rear cover.
- Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet
- 2. Withdrawthe chass is backward. (If necessary, take off the wire clamp, connectors etc.)

#### **REMOVING THE SPEAKER**

- After removing the rear cover.
- Remove the 2 screws marked B, and remove the speaker holder as shown in Fig. 1.

NOTE: When removing the screws marked **B** of the speaker remove the lower side screw first, and then remove the upper one.

- 2. Remove the 2 screws C attaching the speaker.
- 3. Follow the same steps when removing the other hand speaker.

#### REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.
- 1. Remove the 3 screws marked **D** as shown in the Fig. 1.
- 2. Remove the 2 claws marked **E** under the CHASSIS as shown in Fig. 2.
- 3. Remove the AV TERMINAL BOARD slightly in the direction of arrow **F** as shown in Fig. 2.

#### **REMOVING THE POWER & DEF PWB**

- After removing the rear cover.
- After removing the rear CHASSIS.
- 1. Remove the 3 screws marked G.
- 2. Remove the POWER & DEF PWB.

#### CHECKING THE PW BOARD

To check the back side of the PW Board.

- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- Erect the chassis vertically so that you can easily check the back side of the PW Board.

#### [CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

#### WIRE CLAMPING AND CABLE TYING

- 1. Be sure to clamp the wire.
- Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

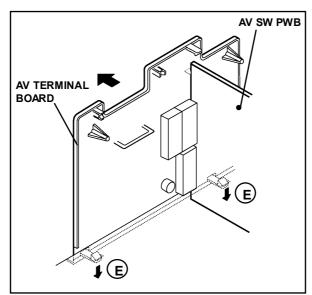


Fig. 2

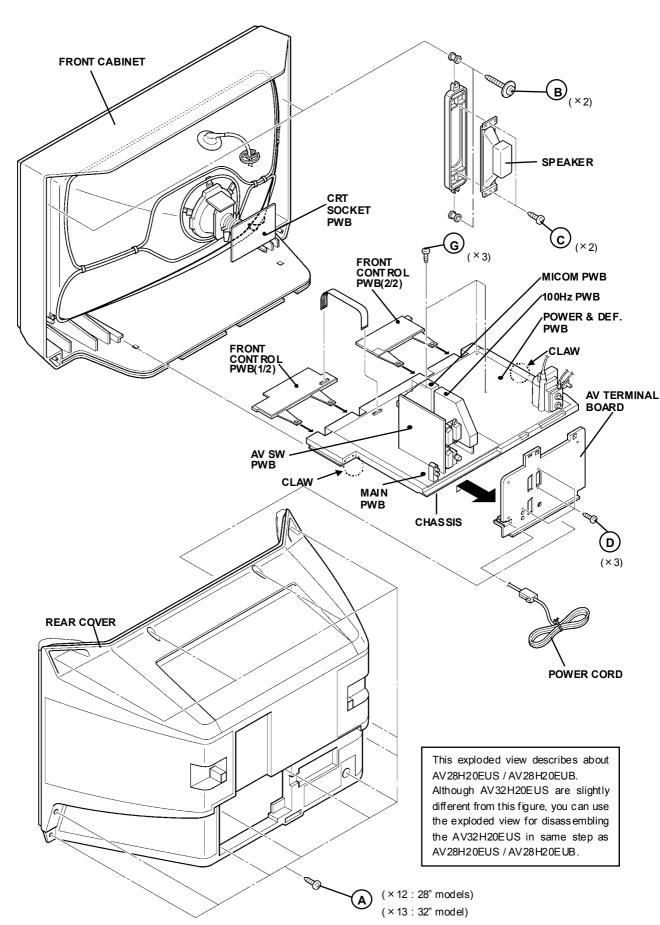


Fig. 1

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#### **REMOVING THE CRT**

- \* Replacement of the CRT should be performed by 2 or more persons.
- After removing the cover, chassis etc.,
- 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig. 3).
- 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
- Remove 4 screws marked by arrows with a box type screw driver as shown in Fig. 4.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
- The CRT should be assembled according to the opposite sequence of its dismounting steps.
- \* The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

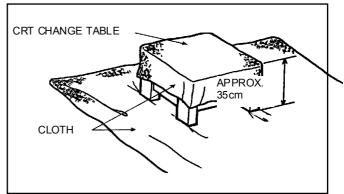


Fig. 3

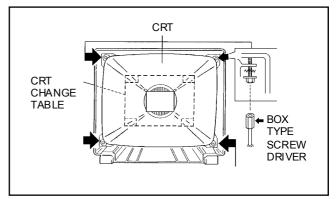


Fig. 4

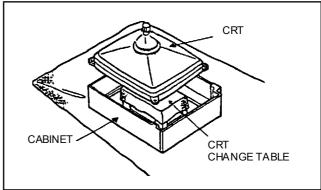


Fig. 5

#### REPLACEMENT OF CHIP COMPONENT

#### **■ CAUTIONS**

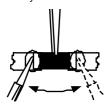
- 1. Avoid heating for more than 3 seconds.
- 2. Do not rub the electrodes and the resist parts of the pattern.
- 3. When removing a chip part, melt the solder adequately.
- 4. Do not reuse a chip part after removing it.

#### **■ SOLDERING IRON**

- 1. Use a high insulation soldering iron with a thin pointed end of it.
- 2. A 30w soldering iron is recommended for easily removing parts.

#### ■ REPLACEMENT STEPS

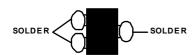
- 1. How to remove Chip parts
- Resistors, capacitors, etc
  - (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



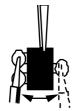
(2) Shift with tweezers and remove the chip part.



- ♦ Transistors, diodes, variable resistors, etc
  - (1) Apply extra solder to each lead.



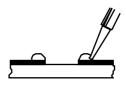
(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



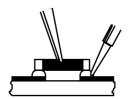
Note: After removing the part, remove remaining solder from the pattern.

#### 2. How to install Chip parts

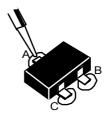
- Resistors, capacitors, etc
  - (1) Apply solder to the pattern as indicated in the figure.



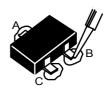
(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.



- ♦ Transistors, diodes, variable resistors, etc
  - (1) Apply solder to the pattern as indicated in the figure.
  - (2) Grasp the chip part with tweezers and place it on the solder.
  - (3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



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#### REPLACEMENT OF MEMORY ICS

#### 1. Memory ICs

This TV us e memory ICs. In the memory ICs, there are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

#### 2. Procedure for replacing memory ICs

# PROCEDURE (1) Power off Switch the power off and unplug the power cord from the outlet. (2) Replace ICs. Be sure to use memory ICs written with the initial data values.

#### (3) Power on

Plug the power cord into the outlet and switch the power on.

#### (4) Check and set SYSTEM CONSTANT SET:

#### \* It must not adjust without signal.

- 1) Press the INFORMATION key and the MUTING key of the REMOTE CONTROL UNIT simultaneously.
- 2) The SERVICE MENU screen of Fig. 1 will be displayed.
- 3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTING key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.
- 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION -/+ key.
- 5) Press the MENU key to memorize the setting value.
- Press the INFORMATION key twice, and return to the normal screen.

#### (5) Setting of receive channels

Set the receive channel.

For setting, refer to the OPERATING INSTRUCTIONS.

#### (6) User settings

Check the user setting values of Table 2, and if setting value is different, set the correct value.

For setting, refer to the OPERATING INSTRUCTIONS.

#### (7) Setting of SERVICE MENU

Verify the setting items of the **SERVICE MENU** of Table 3, and reset where necessary.

For setting, refer to the SERVICE ADJUSTMENTS.

#### SERVICE MENU

1. IF 2. V/C
3. AUDIO 4. DEF
5. VSM PRESET 6. STATUS
7. PIP 8. ——
9. SHIPPING (OFF) 0. BUS FREE
1-9: SELECT I: EXIT

Fig.1



Fig.2

#### NAME OF REMOTE CONTROL KEY

Names of key	key
INFORMATION	0
MUTING	X
MENU	(K)
FUNCTION UP/DOWN	(\$\$\)
FUNCTION -/+	⊕⊙

#### SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

Setting item	Setting content	Setting value	Setting item	Setting content	Setting value
DESTINATION	<b>►</b> EU→EK→EI—	EU	DOLBY	NO -YES	NO
CRT TYPE	16:9 → 4:3	16:9	BBE	NO YES	YES
PURITY	NO -YES	NO	PROGRESSIVE	NO YES	NO
PICTURE TILT	NO YES	YES	TDA9178	NO - YES	NO
DIGIPURE PRO	NO → YES	NO	TONEIC	NO → YES	NO
PIP	NO→1TUNER→2TUNER	NO	FLAT	NO YES	YES
PIC&TEXT	NO YES	NO			

#### **USER SETTING VALUES (TABLE 2)**

SOLIT SETTING VALUE (TABLE 2)				
PICTURE	SETTING	EXT SETTING		
TINT	COOL	ID	BLANK	
CONTRAST / BRIGHT SHARP / COLOUR	REFER to VSMPRESET	S-IN DUBBING	BLANK EXT-1→EXT-2	
PICTURE	FEATURES	FEAT	URES	
DIGITAL VNR	AUTO	SLEEP TIMER BLUE BACK	OFF ON	
COLOUR SYSTEM	TV : According to preset CH EXT : AUTO			
4:3 AUTO ASPECT	PANORAMIC			
SOUND	SETTING	INST	TALL	
BASS / TREBLE / BALANCE	CENTER	LANGUAGE	ENGLISH	
HYPERSOUND BBE	OFF ON	EDIT/MANUAL	PRESET CH only The others : BLANK	

SERVICE MENU SETING ITEMS (TABLE 3)

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. ATT ON/OFF		1. V-SHIFT 2. V-SIZE 3. H-CENT
2. V / C	1. RGB BLK 2. WDR R 3. WDR G 4. WDR B 5. BRIGHT 6. CONTRAST 7. COLOUR 8. HUE 9. SHARP 10.VCO ADJ.	4. DEF.	4. H-SIZE 5. TRAPEZ 6. EW-PIN 7. COR-PIN 8. COR-UP 9. COR-LO 10. ANGLE 11. BOW 12. V-S.CR 13. V-LIN
3.AUDIO (Do not adjust)	11. VID AGC 12. SYC SLI 13. A MOVIE  1. ERR LIMIT 2. A2 ID THR 3. Q-PEAK	5. VSM PRESET COOL NORMAL	<ol> <li>CONT.</li> <li>BRIGHT</li> <li>SHARP</li> <li>COLOUR</li> <li>HUE</li> <li>WDR R</li> </ol>
9.SHIPPING (Do not adjust)	ON/OFF	Ч WARM	7. WDR G 8. WDR B
		6.STATUS (Do not adjust)	VPS PDC

\* : Do not adjust

#### SERVICE ADJUSTMENTS

#### BEFORE STARTING SERVICE ADJUSTMENT

- There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
- The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Make sure that connection is correctly made to AC power source
- 4. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
- 5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
- Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

Preparation for adjustment (presetting):
 Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

#### Setting position

PICTURE MODE (VSM)	NORMAL
SLEEPTIMER	OFF
TONE BALAN CE	CENTER
ZOOM	FULL

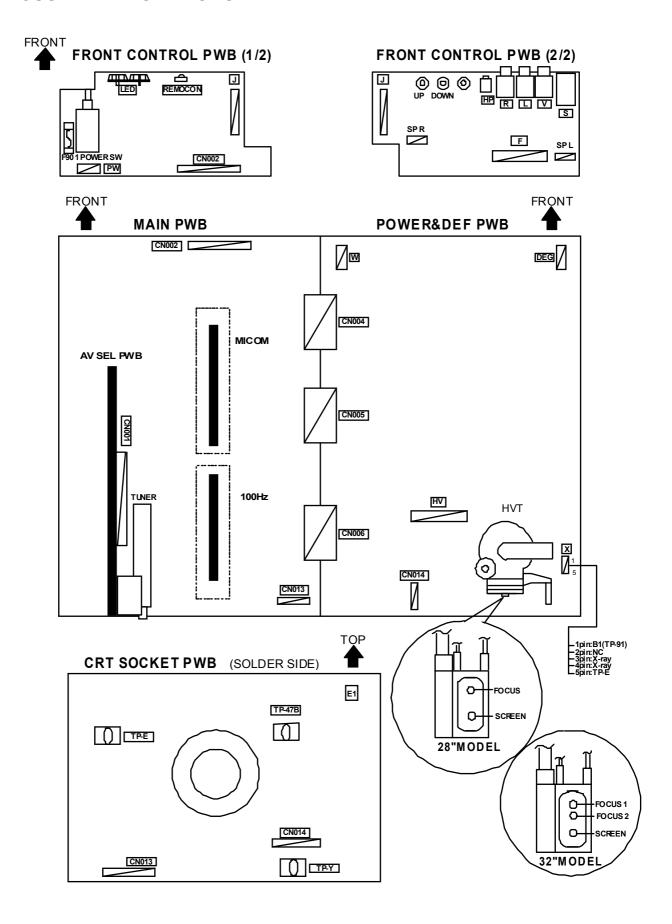
#### MEASURING INSTRUMENT AND FIXTURES

- 1. DC voltmeter (or digital voltmeter)
- 2. Oscilloscope
- 3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
- 4. Remote control unit

#### **ADJUSTMENT ITEMS**

- Checking items.
- Adjustment of FOCUS & SCREEN
- VSM preset adjust setting.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- AUDIO circuit adjustment. (Do not adjust)

#### **ADJUSTMENT LOCATIONS**



#### **BASIC OPERATION SERVICE MENU**

#### 1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

#### 2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

(1) 1. IF · · · · · This mode adjusts the setting values of the IF circuit.

(2) **2.V/C** ..... This mode adjusts the setting values of the VIDEO / CHROMA circuit. (3) 3. AUDIO · · · · · This mode adjusts the setting values of the multiplicity SOUND circuit.

(4) **4. DEF** ...... This mode adjusts the setting values of the DEFLECTION circuit for each as pect mode given below.

**FULL** (100/120Hzi) **PANORAMIC** (100/120Hzi) SUBTITLE (100/120Hzi) COMPRESS (Fixed value) (100/120Hzi)

(5) 5.VSM PRESET ..... This mode adjusts the initial setting values of COOL, NORMAL and WARM.

(VSM: Video Status Memory)

#### 3. BASIC OPERATION OF SERVICE MENU

#### (1) How to enter SERVICE MENU

Press the "INFORMATION" key and the "MUTING" key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig.1 will be displayed.

#### **SERVICE MENU**

#### SERVICE MENU

1. IF 2. V/C 3. AUDIO 4. DEF 5. VSM PRESET 6. STATUS 7 PIP

9. SHIPPING (OFF) 0. BUS FREE

1-9: SELECT i : EXIT

Fig.1

#### (2) Selection of SUB MENU SCREEN

Press one of keys 1~5 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), form the SERVICE MENU.

SERVICE MENU → SUB MENU

1. IF

2. V / C

3. AUDIO

4. DEF.

5. VSM PRESET

6. STATUS

7. PIP

8. --

9. SHIPPING (OFF)

0. BUS FREE

\* : Do not adjust

#### NAME OF REMOTE CONTROL KEY

Names of key	key
INFORMATION	0
MUTING	×
MENU	$\otimes$
FUNCTION UP/DOWN	( <b>3</b> 5)
FUNCTION -/+	<b>()(</b> ()

Fig.2

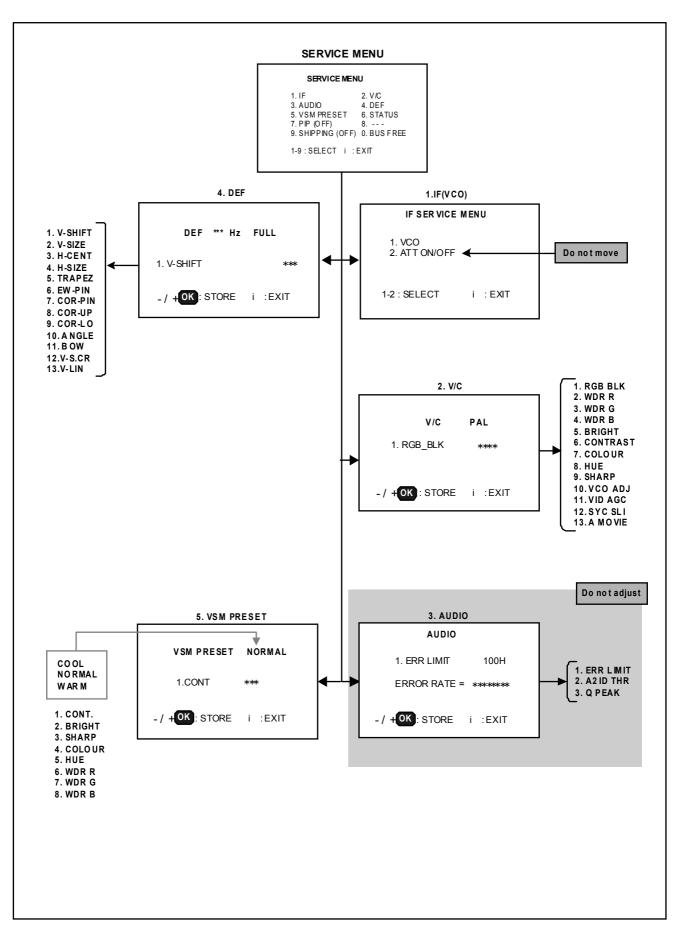


Fig.3 SUB MENU SCREEN

#### (3) Method of Setting

1)	Method of Setting 1.IF
[VC	O] ····· It must not adjust without signal.

① 1 Key ..... Select 1.IF.

② 1 Key ..... Select 1.VCO(CW)

Make sure that the arrow position between the ABOVE REF and BELOW REF.

③ INFORMATION Key · · · · · Return to the SERVICE MENU screen.

#### 2) Method of setting 2.V/C, 3.AUDIO, 4.DEF and 5.VSM PRESET.

① 2~5 Key····· Select one from **2.V/C**, **3.AUDIO**, **4.DEF** and **5.VSM PRESET**.

② FUNCTION UP / DOWN (▲/▼) Key · · · · · Select setting items.

③ FUNCTION -/+ ( ◀/▶) Key · · · · · · · Set (adjust) the setting values of the setting items.
 ④ MENU Key · · · · · · · · Memorize the setting value.

(Before storing the setting values in memory, do not press the CH, TV, POWER ON /

OFF key - if you do, the values will not be stored in memory.)

⑤ INFORMATION Key · · · · · Return to the **SERVICE MENU** screen.

3) Do not setting 6. STATUS, 7. PIP, 8. -- , 9. SHIP PING(OFF) & 0.BUS FREE.

#### (4) Release of SERVICE MENU

1) After completing the setting, return to the SERVICE MENU, then again press the INFORMATION key.

#### **ADJUSTMENTS**

#### CHECK ITEM

Item	Measuring instrument	Test point	Ad justment part	Des cription
B1 Power Supply check	Signal generator DC voltmeter Remote control unit	TP-91(B1) TP-E( , ) [X connector on POWER DEF PWB]	1.RGB BLK	<ol> <li>Receive a any broadcast.</li> <li>Push the "ZOOM" key and select the FULL mode.</li> <li>Select 2. V/C from the SERVICE MENU.</li> <li>Select 1. RGB BLK with function UP / DOWN (▲/▼) key.</li> <li>Press the function + (►) key to find the cut off screen (Black screen).</li> <li>Connect a DC voltmeter to TP-91(B1) and TP-E(卅).</li> <li>Make sure that the voltage is DC139.9 ±2.0V.</li> <li>Press the function - (◀) key to return to service menu</li> </ol>
High Voltage check	Signal generator DC volunteer Remote control unit	CRT anode Chassis GND	1.RGB BLK	<ol> <li>Receive a any broadcast.</li> <li>Push the "ZOOM" key and select the FULL mode.</li> <li>Select 2. V/C from the SERVICE MENU.</li> <li>Select 1. RGB BLK with function UP / DOWN (▲/▼) key.</li> <li>Press the function + (►) key to find the cut off screen (Black screen).</li> <li>Connect a DC voltmeter to CRT ANODE and chassis GND.         <ul> <li>+1kV</li> <li>Make sure that the voltage is DC 31.0kV -1.5kV</li> <li>Press the function - (◄) key to return to service menu.</li> </ul> </li> </ol>
Al JU Bi	Remote control unit  F SERVICEN  1.VCO  22.ATTON/OFF  1-2:SELECT  VCO(CW)  MAIN  DO HIGH  BOVE REF  ST REF  ELOW REF  DO LOW		1. VCO	<ul> <li>Under nomal conditions, no adjustment is required.</li> <li>Confirmation adjustment.</li> <li>Select 1.IF from the SERVICE MENU.</li> <li>Then select 1.VCO from the IF SERVICE MENU.</li> <li>Receive any broadcast.</li> <li>Check the arrow (←) position between the ABOVE REF. and BELOW REF.</li> </ul>

#### **FOCUS & SCREEN ADJUSTMENT**

ltem	Measuring instrument	Test point	Ad justment part	Description
FOCUS adjustment [28" MODEL]	Signal generator	O FOCU O SCRE	FOCUS VR [In HVT] S VR EN VR	<ol> <li>Receive a cross-hatch signal.</li> <li>Press the "ZOOM" key and s elect the FULL mode.</li> <li>While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible.</li> <li>Make sure that when the screen is darkened, the lines remain in good focus.</li> </ol>
FOCUS adjustment [32" MODEL]	Signal generator  FOCUS  HVT  HVT	FOCUS2(F2) FOCUS1(F1) SCREEN1(S		<ol> <li>Receive a cross-hatch signal.</li> <li>Push the "ZOOM" key and select the FULL mode.</li> <li>By turning the FOCUS2 VR, and adjust the picture so that the "O" part vertical line may become thinnest.</li> <li>By turning the FOCUS1 VR, and adjust the picture so that the 3rd horizontal line from the upper may become uniform at the line center and its periphery.</li> <li>Carry out adjustment by repeating the steps 3 and 4 above.</li> <li>Make sure that when the screen is darkened, the lines remain in good focus.</li> </ol>
SCREEN Ad justment			SCREENVR [In HVT]	<ol> <li>Press a whole black signal</li> <li>Press the "ZOOM" key and select the FULL mode.</li> <li>Select 2. V/C from the SERVICE MENU.</li> <li>Turn the SCREEN VR clockwise from the full counter clockwise position and stop it at the point where "CLOW" status (marked in Fig.) changes from 1 to 0 to 1 (which is indicated at the 3rd column from the right.)</li> <li>Then turn the SCREEN VR counterclockwise, and stop where the "CLOW" status changes 1 to 0</li> <li>* "CLOW": control loopout of window.</li> </ol>

lt	em	Measuring Test point instrument		Ad ju	ustment pa	art	Description				
SM Petting	RE SET	Remo			1. CON 2. BRIG 3. SHA 4. COL 5. HUE 6. WDF 7. WDF 8. WDF	SHT RP OUR R R R G	<ol> <li>Seld</li> <li>Adjing</li> <li>bring</li> <li>sho</li> <li>Pre</li> <li>Rest</li> <li>WA</li> <li>Pre</li> <li>* Ref</li> </ol>	ect 5.VSM PRI ust the FUNCT g the set valu wn in the table ss the MENU I spectively selec RM, and make ss the MENU I	ESET from the FION UP/DOW less of 1.CONT key and memo ct the VSM PR similar adjusticey and memo	y of the remote SERVICE ME N (▲/▼) and - ~ 8. WDR rize the set val ESET mode forment as in 3 aborize the set val TIONS for the	NU. -/+ (◀/▶)key B to the valuue. or NORMAL and the vove. ue.
_			1.CON	г. 2.BRIG	HT 3.	.SHARP	4.COLOUR	5. HUE	6.WDR R	7.WDR G	8.WDR B
	COOL		1.CON	г. <b>2.BRIG</b>	НТ 3.	-10	4.COLOUR +1	<b>5. HUE</b>	6.WDR R -27	7.WDR G	<b>8.WDR B</b>
32"	COOL	AL			нт з.					_	
32"			+16	0	нт 3.	-10	+1	0	-27	-12	0
32"	NORM		+16	0	нт 3.	-10 -10	+1	0	-27 0	-12 0	0
32"	NORM		+16 0 -13	0 0	нт 3.	-10 -10 -12	+1 0 -1	0 0	-27 0 +5	-12 0 0	0 0

SETTING VALUES OF VSM PRESET

#### **VIDEO / CHROMA CIRCUIT ADJUSTMENT**

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

Setting item (Adjustment item)	Initial setting value					
2. V/C	PAL	SECAM	NT SC			
1.RGB BLK						
2.WDR R	00 00	<b>←</b>	<b>→</b>			
3.WDR G	00 00	<b>←</b>	<b>←</b>			
4.WDR B (Do not adjust)	-012	<b>←</b>	<b>←</b>			
5. BRIGHT	00 00	<b>—</b>	<b>—</b>			
6.CONTRAST	0060	<b>←</b>	<b>←</b>			
7.COLOUR	00 00	<b>←</b>	←			
8.HUE			0020			
9.SHARP (Do not adjust)	00 07	<b>←</b>	←			
10.VCO ADJ. (Do not adjust)						
11.VID AGC (Do not adjust)	00 00	<b>←</b>	←			
12.SYC SLI (Do not adjust)	00 07	<b>←</b>	←			
13.A MOVIE (Do not adjust)	0001	<b>←</b>	←			

\* : Do not adjust

Item	Measuring instrument	Test point	Ad justment part	Description
WHITE BALANCE (High Light) adjustment	Signal generator Remote control unit		2. WDR R 3. WDR G 4. WDR B (Do not adjust)	<ul> <li>Set the PICTURE MODE to NORMAL.</li> <li>1. Receive a black and white signal (colour off).</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Modify 2. W DR R and 3.WDR G data to adjust the white balance (high light).</li> <li>4. Press the MENU key and memorize the set value.</li> <li>5. Change the contrast and brightness with the remote control up &amp; down from low-light to high-light and check that the tracking of the white balance is good.</li> </ul>
SUB BRIGHT adjustment	Remote control unit		5. BRIGHT	<ol> <li>Receive any broadcast.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 5.BRIGHT with the FUNCTION UP/DOWN (▲/▼) key.</li> <li>Set the initial setting value with the FUNCTION -/+ (◀/►) key.</li> <li>If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
SUB CONT. Ad justment	Remote control unit		6.CONT.	<ol> <li>Receive any broadcast.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 6.CONT with the FUNCTION UP/DOWN (▲/▼) key.</li> <li>Set the initial setting value with the FUNCTION - / + (◄/▶) key.</li> <li>If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast.</li> <li>Press the MENU key and memorize the set value.</li> </ol>

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Item	Measuring instrument	Test point	Ad justment part	Description
SUB COLOUR I adjustment	Remote control unit		7.COLOUR (PAL~NTSC) PALCOLOUR	[Method of adjustment without measuring instrument]  (PAL COLOUR)  1. Receive PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 7.COLOUR with the FUNCTION UP/DOWN (▲/▼) key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION - or + (◄/▶) key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the MENU key and memorize the set value.
	8 9	- MENU (OK) key	SECAM COLOUR	(SECAM COLOUR)  1. Receive a SECAM broadcast. 2. Make fine adjustment of SECAM COLOUR in the same manner as for above.  (NTSC 3.58 COLOUR)
(INF	FUNCT FORMATION ) ke	TION kev		<ol> <li>Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal.</li> <li>Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above.</li> </ol>
REMO	OTE CONTROL	KEY		When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.

Item	Measuring instrument	Test point	Ad justment part	Description
SUB COLOUR II adjustment	Signal generator	TP-47B TP-E(力) [CRT	7.COLOUR (PAL~NTSC)	[Method of adjustment using measuring instrument]
	Oscill oscope Remote control unit	[CRT SOCKET PWB]	PAL COLOUR	(PAL COLOUR)  1. Receive a PAL full field colour bar signal (75% white).  2. Select 2.V/C from the SERVICE MENU.  3. Select 7.COLOUR with the FUNCTION UP/DOWN (▲/▼) key.  4. Set the initial setting value of PAL COLOUR with the FUNCTION - or + (◀/▶) key.  5. Connect the oscilloscope between TP-47B and TP-E(♣).  6. Adjust PAL COLOUR and bring the value of (A) in the illustration to the values as shown given billow (Voltage difference between white (W) and blue (B)).  7. Press the MENU key and memorize the setting value.
			SECAMCOLOUR	(SECAM COLOUR)  1. Receive a SECAM full field colour bar signal (75% white).  2. Set the initial setting value of SECAM COLOUR with the FUNCTION -/+ (◀/▶) key.  3. Adjust SECAM COLOUR and bring the value of (♠) in the illustration to the values as shown given billow (Voltage difference between white (W) and blue (B)).  4. Press the MENU key and memorize the setting value.
			NTSC COLOUR	<ul> <li>(NTSC 3.58 COLOUR)</li> <li>1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION -/+ ( ◀/▶ ) key.</li> <li>3. Adjust NTSC 3.58 COLOUR and bring the value of (A) in the illustration to the values as shown given billow (Voltage difference between white (W) and blue (B)).</li> <li>4. Press the MENU key and memorize the setting value.</li> </ul>
-	Y G W Cy	R (A)	(-)  ↑0  ↓ (+)	32" 28"  VOLTAGE (W-B) +5V +6V  (NTSC 4.43COLOUR)  1. When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.

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Measuring instrument	Test point	Ad justment part	Description
Remote control unit		8. HUE	[Method of adjustment without measuring instrument]
		NTSC 3.58 HUE	<ol> <li>INTSC 3.58 HUE]</li> <li>Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 8. HUE with the FUNCTION UP/DOWN (▲/▼) key.</li> <li>Set the initial setting value of NTSC 3.58 HUE with the FUNCTION -/+ (◄/►) key.</li> <li>If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
		NTSC 4.43 HUE	<ul> <li>(NTSC 4.43 HUE)</li> <li>1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values</li> </ul>
Signal generator	TP-47B	8. HUE	[Method of adjustment using measuring instrument]
Os cill oscope  Remote control unit	[CRT SOCKET PWB]	NTSC 3.58 HUE	<ol> <li>Input a NTSC 3.58 MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>Select 2.V/C from the SERVICE MENU.</li> <li>Select 8. HUE with the FUNCTION UP/DOW N (▲/▼) key.</li> <li>Set the initial setting value of NTSC 3.58 HUE with the FUNCTION - or + (◄/►) key.</li> <li>Connect the oscilloscope between TP-47B and TP-E(♣)</li> <li>Adjust NTSC 3.58 HUE to bring the value of (B) in the illustration to the values as shown given billow (voltage difference between white (W) and magenta (Mg)).</li> <li>Press the MENU key and memorize the setting value</li> </ol>
W Cv M	Ma B	 	32" 28"
	g	(+)	VOLTAGE (W-Mg) -8V -3V
		NTSC 4.43 HUE	(NTSC 4.43 HUE)  1. When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.
	Signal generator Os cill oscope Remote control unit	Signal TP-47B generator Socket PWB]  Y G Remote control unit  Y G Remote TP-47B TP-E(\( \Lambda \)) [CRT SOCKET PWB]  (B)	Remote control unit  Signal TP-47B Benerator TP-E(JL) [CRT SOCKET PWB]  Remote control unit  NTSC 3.58 HUE  NTSC 3.58 HUE  NTSC 3.58 HUE  NTSC 3.58 HUE

: Fixed value

#### **DEFLECTION CIRCUIT ADJUSTMENT**

There are 4 aspect modes ( ①FULL, ②PANORAMIC, ③SUBTITLE, ④COMPRES) of the adjustment (1) 100Hz i mode, (2) 120Hz i mode ······ depending upon the kind of signals (vertical frequency 100Hzi / 120Hzi).

- When the 100Hz FULL mode has been established, the setting of other modes will be done automatically.
   Ho wever, if the picture quality has not been optimized, adjust each mode again, respectively.
- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

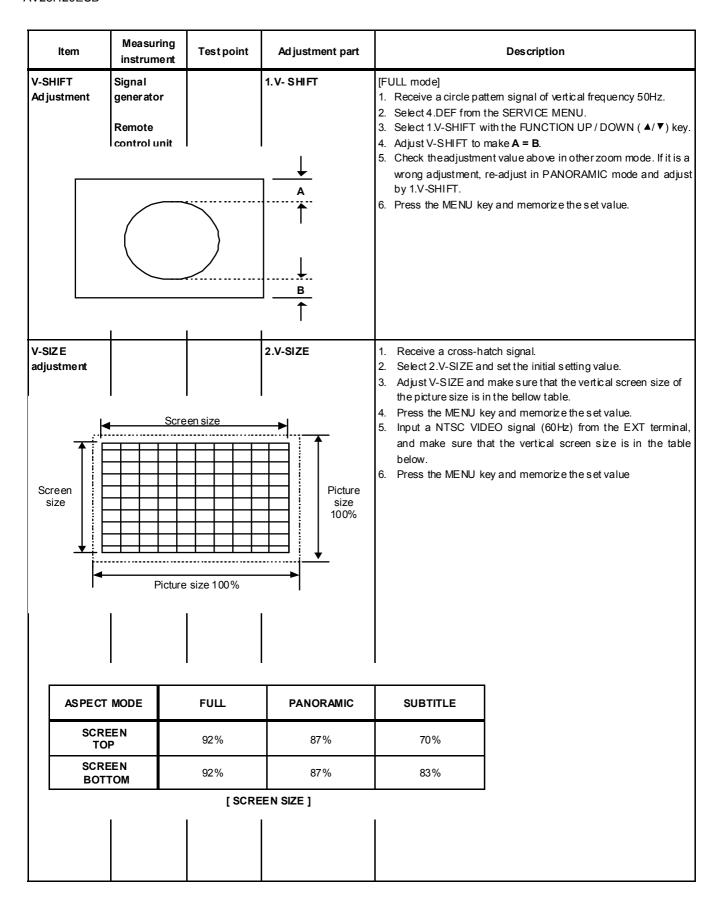
#### Initial setting value (AV32H20EUS)

		Initial setting value								
Setting item	Ad justment name	FULL		PANORAMIC		SUBTITLE		COMPRESS		
		100Hzi	120Hzi	100Hzi	120Hzi	100Hzi	120Hzi	100Hzi	60 P	
1. V-SHIFT	Vertical center	-001	+001	0000	0000	+012	00 00	0000	0000	
2. V-SIZE	Vertical height	+002	-001	+002	0000	+008	00 00	-014	0000	
3. H-CENT	Horizontal center	-005	+004	-002	0000	00 00	00 00	0000	0000	
4. H-SIZE	Horizontal width	0000	-004	-003	0000	00 00	00 00	0000	0000	
5. TRAPEZ	Trapezoidal distortion correction	-013	-002	-003	0000	-002	0000	0000	0000	
6. EW-PIN	Side pin correction	-041	0000	0000	0000	0000	00 00	0000	0000	
7. COR-PIN	CornerPin	0000	0000	0000	0000	00 00	0000	0000	0000	
8. COR-UP	Corner Pin correction Up side	0000	0000	0000	0000	00 00	00 00	0000	0000	
9. COR-LO	Corner Pin correction Low side	0000	0000	0000	0000	00 00	00 00	0000	0000	
10.ANGLE	Angle correction	0000	0000	0000	0000	0000	0000	0000	0000	
11.BOW	Bow-shaped distortion correction	0000	0000	0000	0000	00 00	00 00	0000	0000	
12.V-S.CR (Do not adjust)	Vertical height correction	0000	0000	00 00	00 00	+012	0000	0000	00 00	
13.V-LIN (Do not adjust)	Vertical Linearity	-007	00 00	00 00	00 00	-017	00 00	0000	0000	

#### Initial setting value (AV28H20EUS, AV28H20EUB)

		Initial setting value								
Setting item	Ad justment name	FULL		PANORAMIC		SUBTITLE		COMPRESS		
		100Hzi	120Hzi	100Hzi	120Hzi	100Hzi	120Hzi	100Hzi	60 P	
1. V-SHIFT	Vertical center	-002	+002	0000	0000	+011	00 00	0000	00 00	
2. V-SIZE	Vertical height	+006	00 00	+003	0000	+009	00 00	-015	00 00	
3. H-CENT	Horizontal center	-013	+004	-003	0000	+001	0000	0000	0000	
4. H-SIZE	Horizontal width	-002	-004	-004	0000	00 00	00 00	0000	00 00	
5. TRAPEZ	Trapezoidal distortion correction	-023	00 00	-003	0000	00 00	0000	0000	00 00	
6. EW-PIN	Side pin correction	-042	00 00	0000	0000	00 00	0000	0000	0000	
7. COR-PIN	Corner Pin	0000	00 00	0000	0000	00 00	0000	0000	00 00	
8. COR-UP	Corner Pin correction Up side	0000	00 00	0000	0000	00 00	0000	0000	0000	
9. COR-LO	Corner Pin correction Low side	0000	00 00	0000	0000	00 00	00 00	0000	00 00	
10.ANGLE	Angle correction	0000	00 00	0000	0000	00 00	00 00	0000	0000	
11.BOW	Bow-shaped distortion correction	0000	00 00	0000	0000	00 00	00 00	0000	00 00	
12.V-S.CR (Do not adjust)	Vertical height correction	+002	00 00	00 00	00 00	+010	00 00	0000	00 00	
13.V-LIN (Do not adjust)	Vertical Linearity	-005	00 00	00 00	0000	-015	0000	0000	0000	

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ltem	Measuring instrument	Test point	Ad justment part	Description
H. CENTER adjustment	c )%		3.H-CENT.	1. Receive a circle pattern signal. 2. Select 3.H-CENT and set the initial setting value. 3. Adjust H-CENT to make C=D. 4. Press the MENU key and memorize the set value.
H.SIZ E adjustment			4. H-SIZ E	<ol> <li>Receive a circle pattern signal.</li> <li>Select 4.H-SIZE and set the initial setting value.</li> <li>Adjust H-SIZE and make sure that the horizontal screen size of the picture size is in the bellow table.</li> <li>Press the MENU key and memorize the set value.</li> <li>Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size of the each ASPECT mode is in the below table.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
AS PE C MODE		FULL	PANORAMIC	SUBTITLE
H SIZE	:	92%	95%	92%
		[ SCREE	N SIZE]	
EW-PIN adjustment	1	Straight —	6.EW-PIN	<ol> <li>Select 6.EW-PIN and set the initial setting value</li> <li>Adjust EW-PIN and make the 2nd.vertical lines at the left and right edges of the screen straight. Also make sure that the 3rd vertical lines are straight.</li> <li>Press the MENU key and memorize the set value.</li> </ol>

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ltem	Measuring instrument	Test point	Ad justment part	Description
TRAPEZIUM adjustment	RAPEZIUM Signal generator Remote control unit  Parallel  Parallel  DR. UP/LO Signal 7.COR-PIN		5. TRAPEZ	<ol> <li>Receive a cross-hatch signal.</li> <li>Select 5.TRAPEZ with the FUNCTION UP/DOWN (▲/▼) key.</li> <li>Set the initial setting value of TRAPEZ with the FUNCTION         <ul> <li>or + (◀/▶) key.</li> </ul> </li> <li>Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel.</li> <li>Press the MENU key and memorize the set value.</li> </ol>
COR. UP/LO adjustment  Straigh			8.COR-UP 9.COR-LO	<ol> <li>Select 8.COR-UP with the FUNCTION UP / DOWN (▲/▼) key.</li> <li>Set the initial setting value of CORUP with the FUNCTION - or + (◄/►) key.</li> <li>Adjust COR-UP, and bring the straight line at the upper corner.</li> <li>Select 9.COR-LO with the FUNCTION UP / DOWN (▲/▼) key.</li> <li>Set the initial setting value of COR-LO with the FUNCTION - or + (◄/►) key.</li> <li>Adjust COR-LO, and bring the straight line at the low comer.</li> <li>Press the MENU key and memorize the set value.</li> <li>If the extreame upper &amp; lower corners are a little pin or barrel chose 7.COR-PIN and adjust.</li> <li>Press the MENU key and memorize the set value</li> </ol>
ANGL E adjustment	F	ig. A	10. ANGLE	<ul> <li>In case where there is a parallelogrammical distortion of images on the screen. (Fig.A)</li> <li>Select 10.ANGLE with the FUNCTION UP / DOWN (♣/▼) key.</li> <li>Adjust ANGEL, and bring the VERTICAL lines straight</li> <li>Press the MENU key and memorize the set value.</li> </ul>

ltem	Measuring instrument	Test point	Ad justment part	Description
BOW adjustment		Fig. B	11.BOW	<ul> <li>In case where there is a bow-shaped distortion of images on the screen. (Fig.B)</li> <li>Select 11.BOWwith the FUNCTION UP/DOWN (▲/▼) key.</li> <li>Adjust BOW, and bring the VERTICAL lines straight.</li> <li>Press the MENU key and memorize the set value.</li> </ul>
V-S.CR & V.LINE ARITY adjustment			12.V-S.CR 13.V-LIN  TOP  CENTER  BOTTOM	<ul> <li>When the vertical linearity has been deteriorated remarkably, perform the following steps.</li> <li>Receive a cross-hatch signal.</li> <li>Select 13.V-LIN with the FUNCTION UP/DOW N (▲/▼)k ey.</li> <li>Set the initial setting value of 13.V-LIN with the FUNCTION -/+ (◄/►) key.</li> <li>Select 12.V-S.COR with the FUNCTION UP / DOWN (▲/▼) key.</li> <li>Set the initial setting value of 12.V-S.COR with the FUNCTION -/+ (◄/►) key.</li> <li>Adjust 13.V-LIN and 12.V-S.COR so that the spaces of each line on TOP, CENTER and BOTTOM become uniform.</li> </ul> NOTE: Do not adjust PANORAMIC & SUBTITLE mode.
				At first the adjustment in 100Hz FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 120Hz (NTSC EXT mode) FULL mode. If the adjustment in 100Hz each aspect mode has been done and stored, the data for the same aspect modes in 120Hz is corrected in the respective value. Only the data for the other aspect mode in 120Hz is corrected for its elf.

No. 51945 29

AV32H20EUS AV28H20EUS AV28H20EUB

#### **AUDIO CIRCUIT ADJUSTMENT**

Do not touch 3. AUDIO adjustment of the SERVICE MENU as it requires no adjustment.
 If values had changed for the some reason, set the initial values in the following table.

#### 3. AUDIO (Do not adjust)

Setting item	Variable range	fixed value
1. ERR LIMIT	000H∼FF0H	100H
2. A2 ID THR	00H∼FFH	19H
3. Q-PEAK	0000H∼7FFFH	

# **JVC**

# SCHEMATIC DIAGRAMS

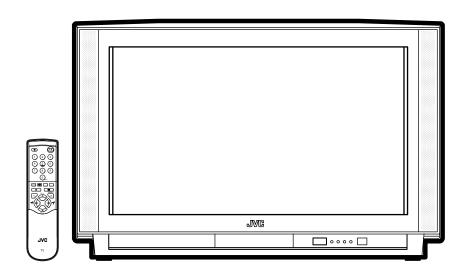
#### **COLOUR TELEVISION**

### AV32H20EUS AV28H20EUS AV28H20EUB

**BASIC CHASSIS** 

 $MF \coprod$ 

CD-ROM No.SML200205



InteriArt Natural Vision

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# FRONT FR

# AV32H20EUS / AV28H20EUS / AV28H20EUB STANDARD CIRCUIT DIAGRAM

#### ■ NOTE ON USING CIRCUIT DIAGRAMS

#### 1.SAFETY

The components identified by the \(\triangle \symbol \) and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

#### 2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal : Colour bar signal

(2) Setting positions of each knob/button and

variable resistor : Original setting position

when shipped

(3)Internal resistance of tester :DC  $20k\Omega/V$ 

(4)Oscilloscope sweeping time :H  $\Rightarrow$  20 $\mu$ S/div

 $V \Rightarrow 5mS/div$ Others  $\Rightarrow$  Sweeping time is

specified :All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

#### 3.INDICATION OF PARTS SYMBOL [EXAMPLE]

In the PW board :R1209 → R209

#### 4.INDICATIONS ON THE CIRCUIT DIAGRAM (1)Resistors

Resistance value

(5) Voltage values

No unit  $\begin{array}{ccc} : [ \ \Omega \ ] \\ \mathsf{K} & : [\mathsf{K} \ \Omega \ ] \\ \mathsf{M} & : [\mathsf{M} \ \Omega \ ] \end{array}$ 

Rated allowable power

No indication :1/ 16 [W]
Others :As specified

Type

No indication :Carbon resistor

OMR :Oxide metal film resistor

MFR :Metal film resistor

MPR :Metal plate resistor

UNFR :Uninflammable resistor

FR :Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2)Capacitors

Capacitance value

 $\begin{array}{ll} \mbox{1 or higher} & :[pF] \\ \mbox{less than 1} & :[\mu F] \end{array}$ 

Withstand voltage

No indication :DC50[V]

Others :DC withstand voltage [V]
AC indicated :AC withstand voltage [V]

\* Electrolytic Capacitors

47/50[Example]:Capacitance value [µF]/withstand voltage[V]

Type

No indication :Ceramic capacitor

MM :Metalized mylar capacitor

PP :Polypropylene capacitor

MPP :Metalized polypropylene capacitor

MF :Metalized film capacitor
TF :Thin film capacitor
BP :Bipolar electrolytic capacitor

TAN :Tantalum capacitor

(3)Coils

No unit :[ µH]

Others :As specified

(4)Power Supply



\*Respective voltage values are indicated

#### (5)Test point



(6)Connecting method



#### (7)Ground symbol

」:ISOLATED(NEUTRAL) side ground

≟ :EARTH ground

∴ :DIGITAL ground

#### 5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ( $\bot$ ) side GND and the ISOLATED(NEUTRAL) : ( $\bot$ ) side GND.Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.
- Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

#### NOTE

Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

#### FRONT CONTROL PWB PATTERN [1/2]

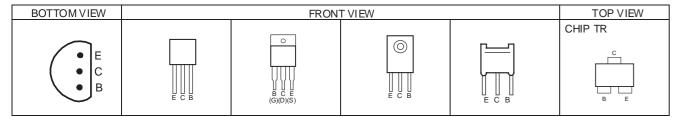
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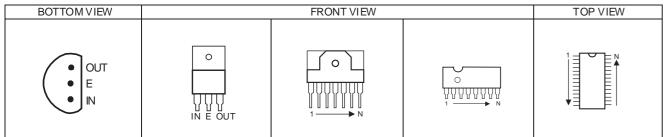
SEMICONDUCTOR SHAPES ----- 2-2

#### **SEMICONDUCTOR SHAPES**

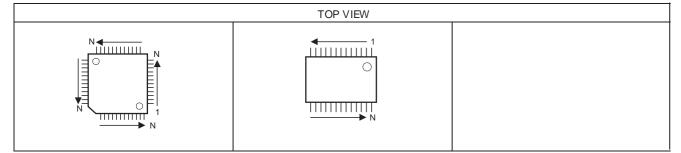
#### **TRANSISTOR**



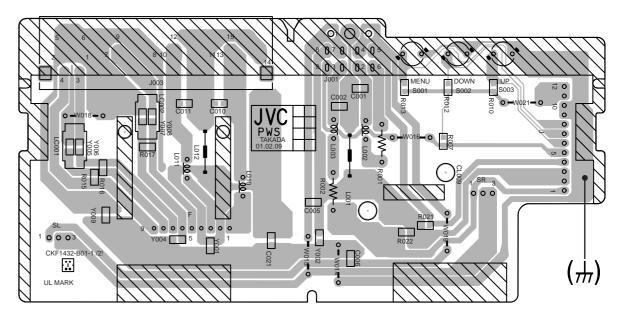




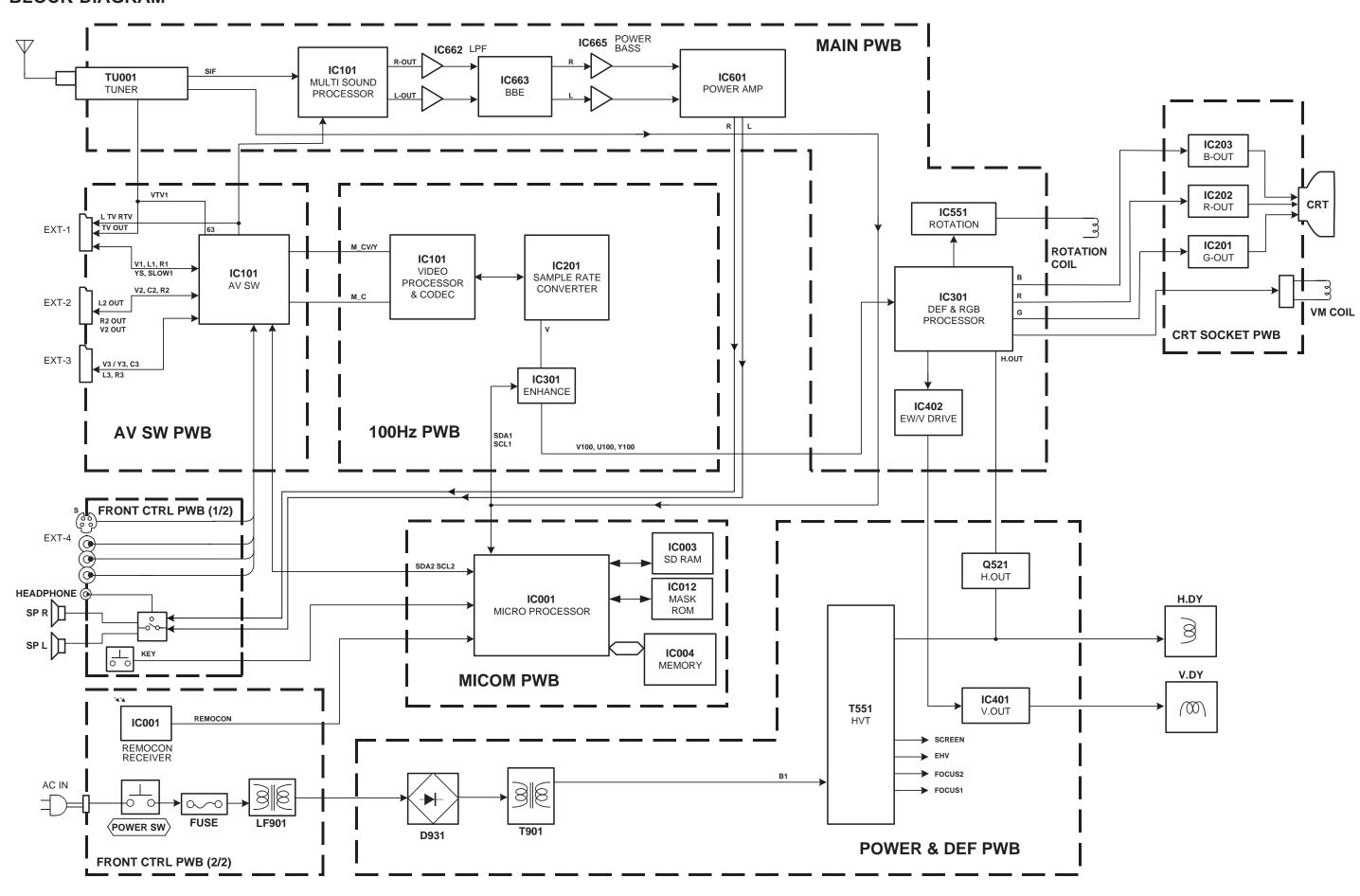
#### CHIP IC



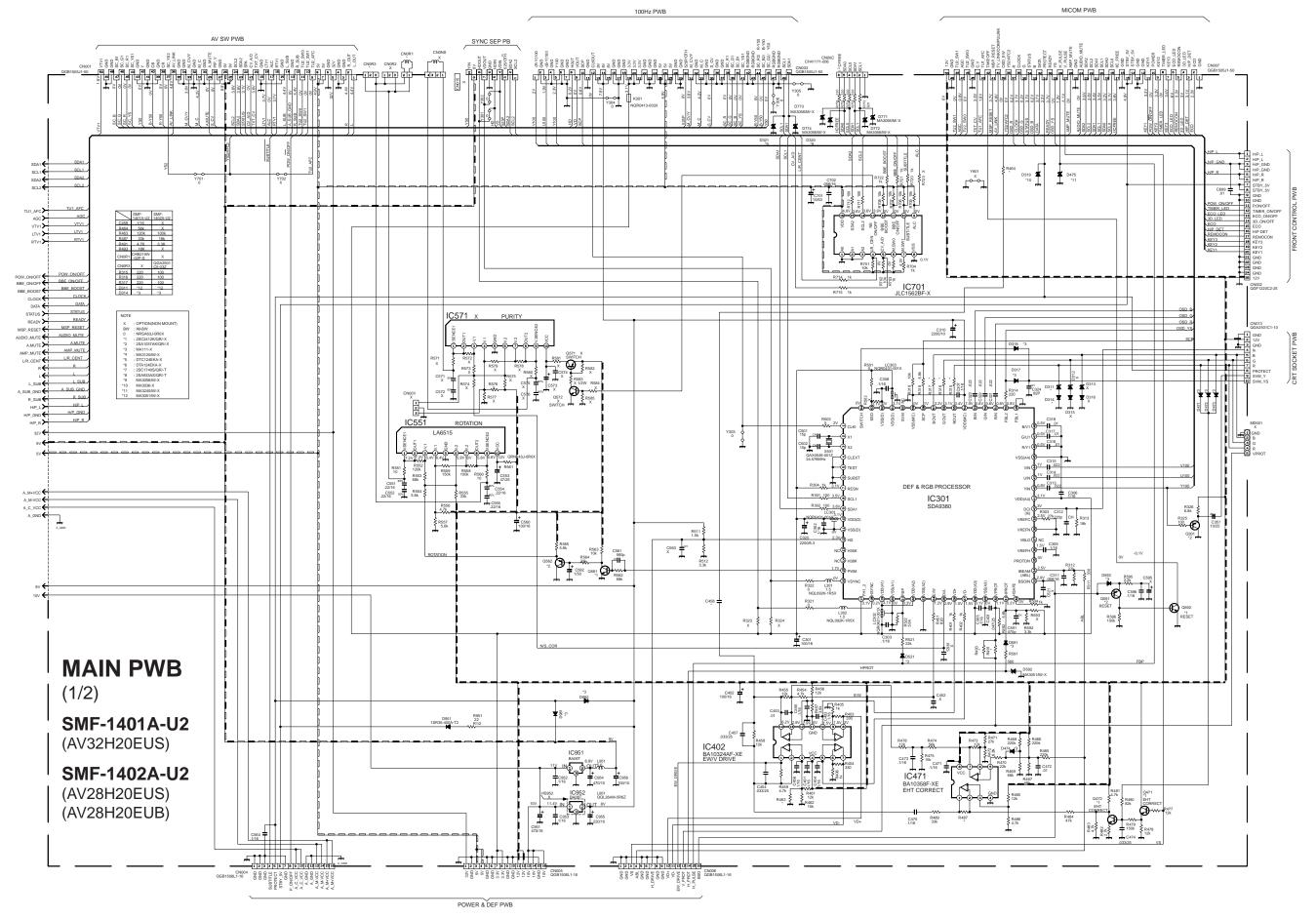




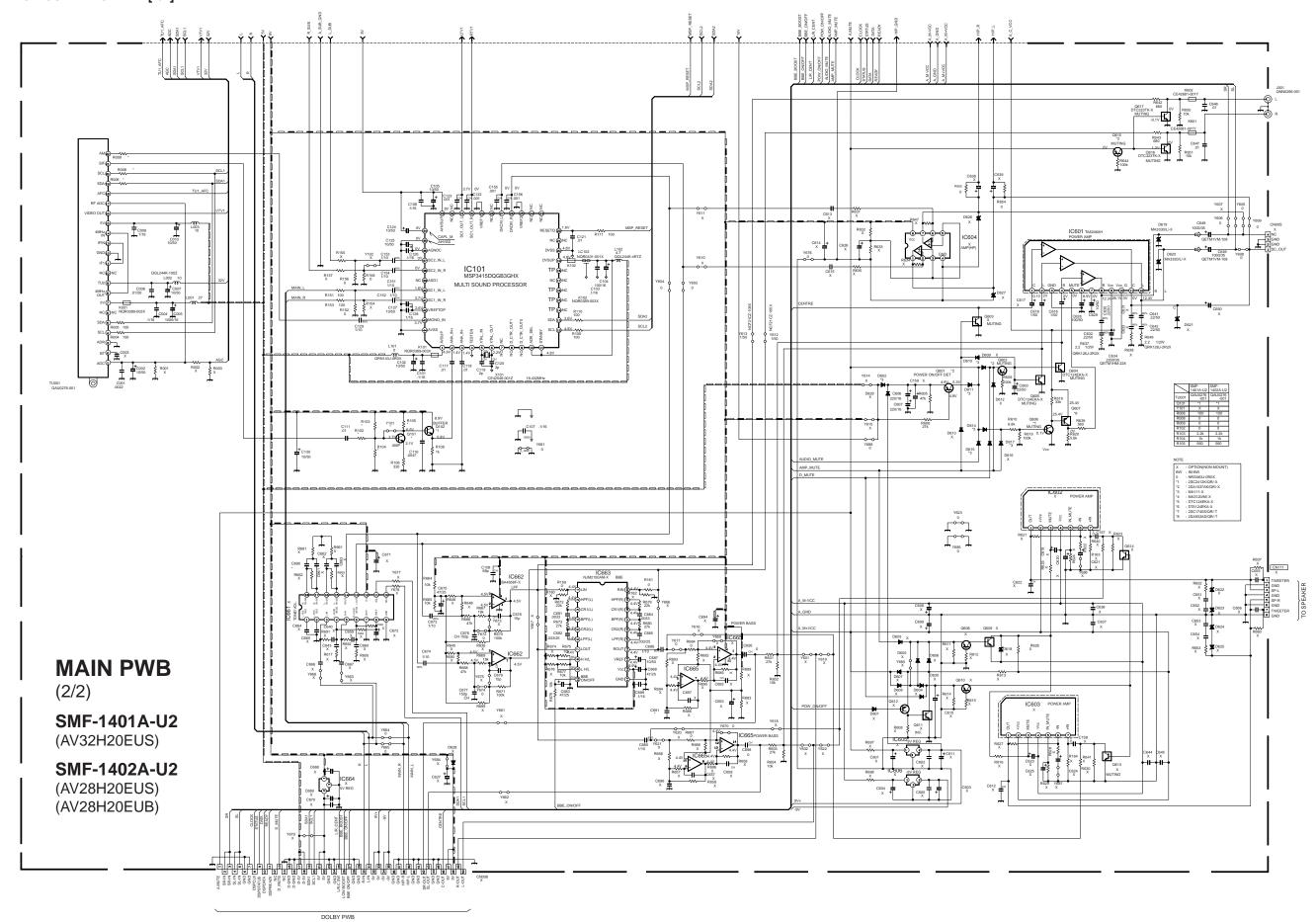
#### **BLOCK DIAGRAM**

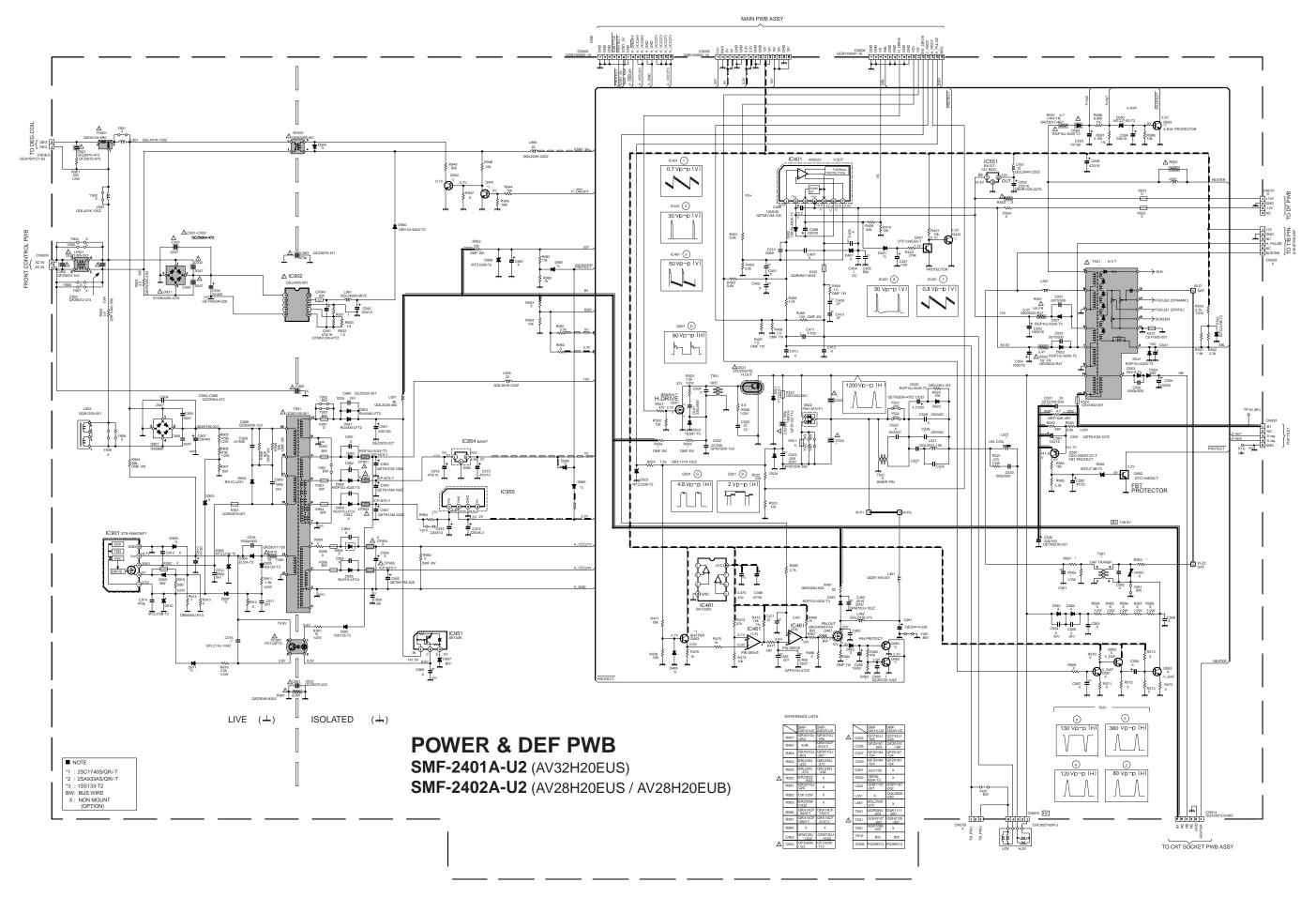


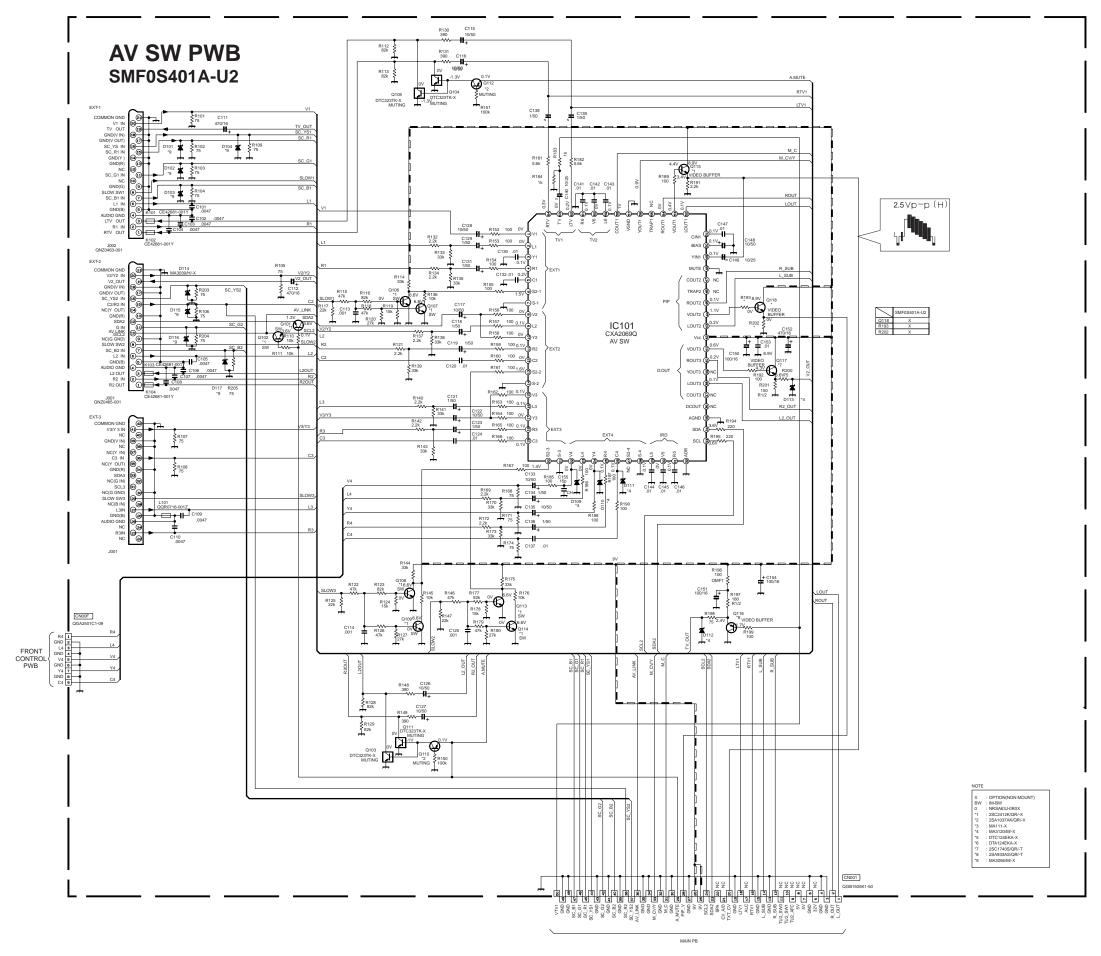
#### CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAM [1/2]

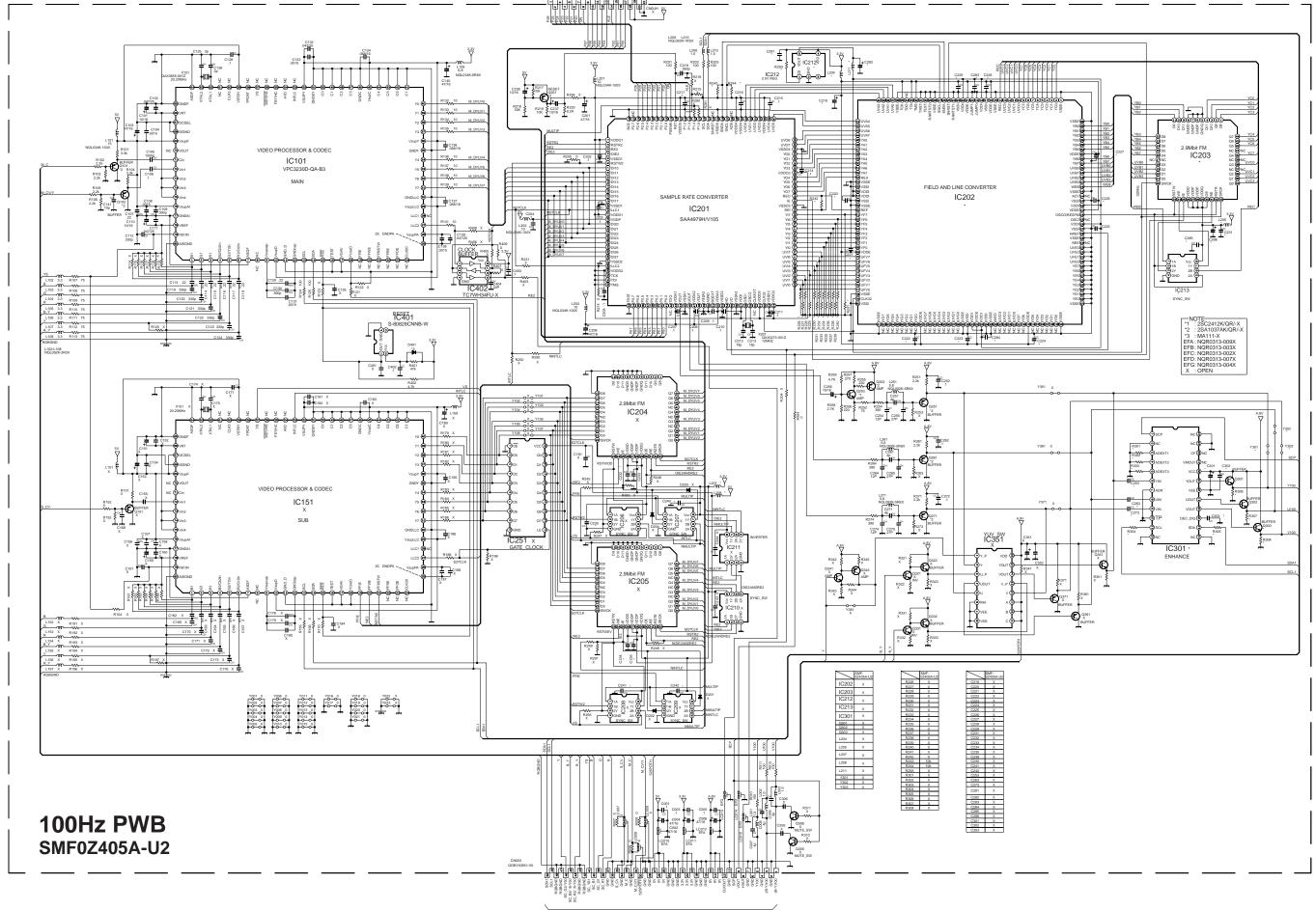


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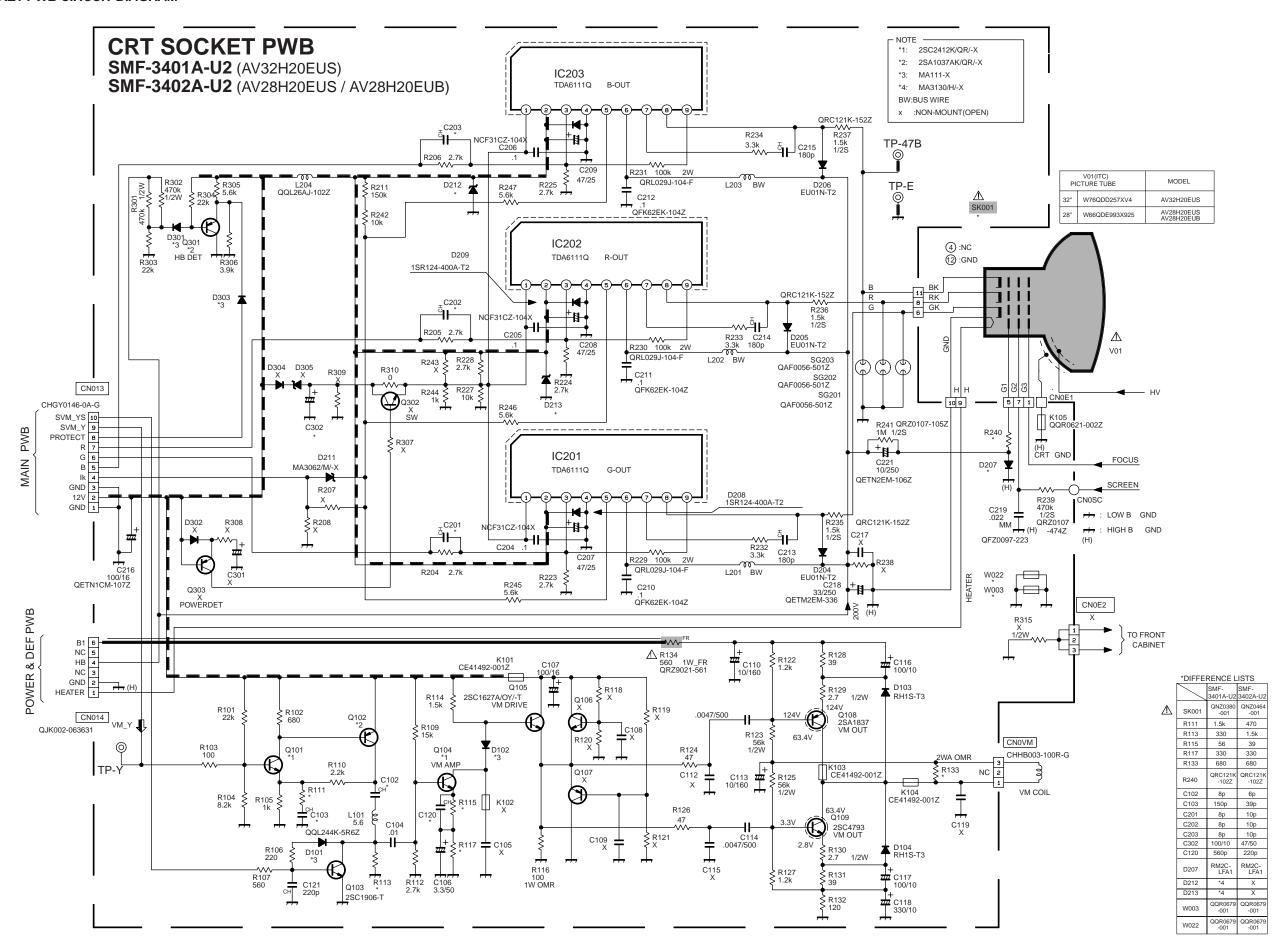


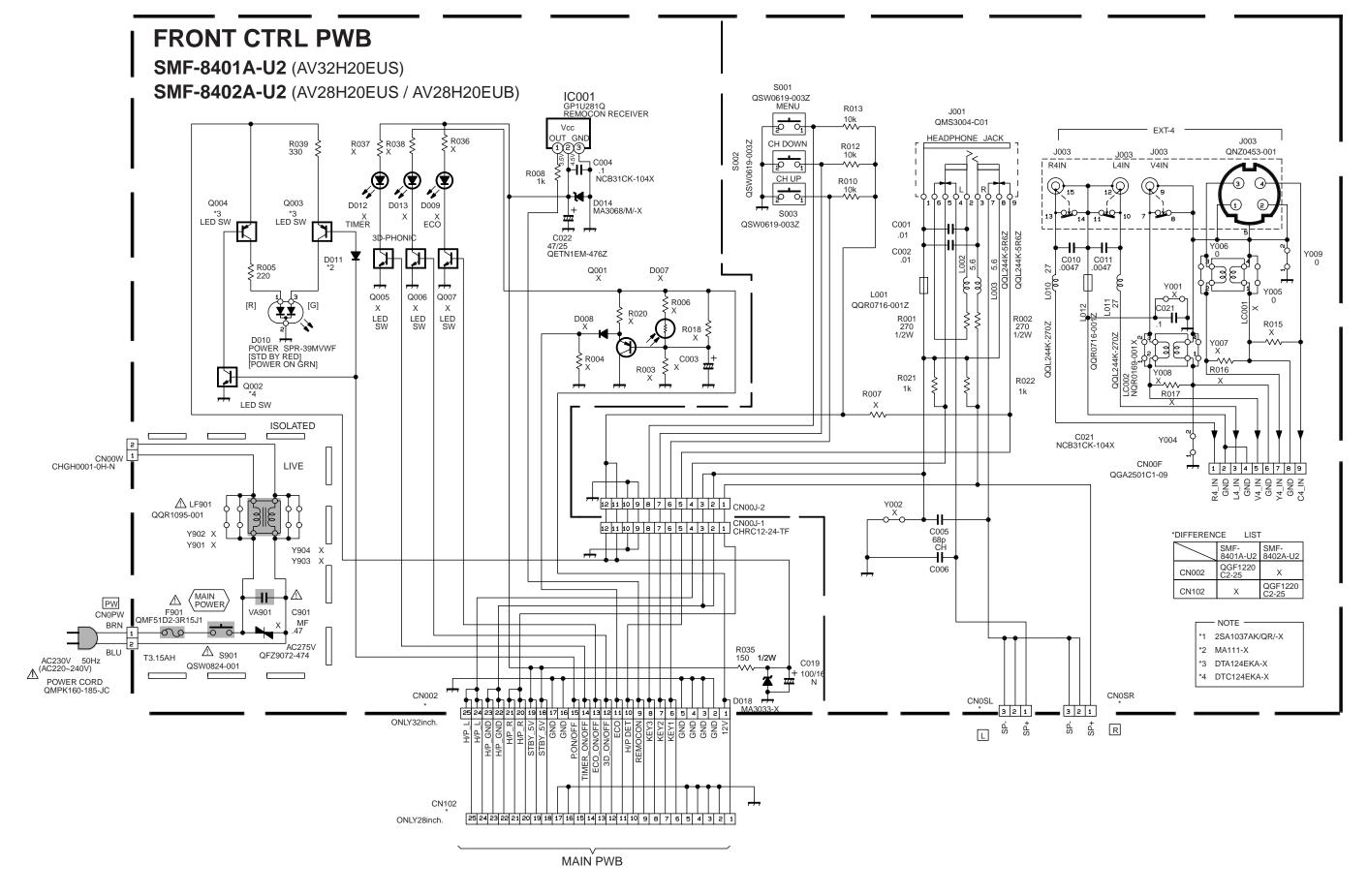






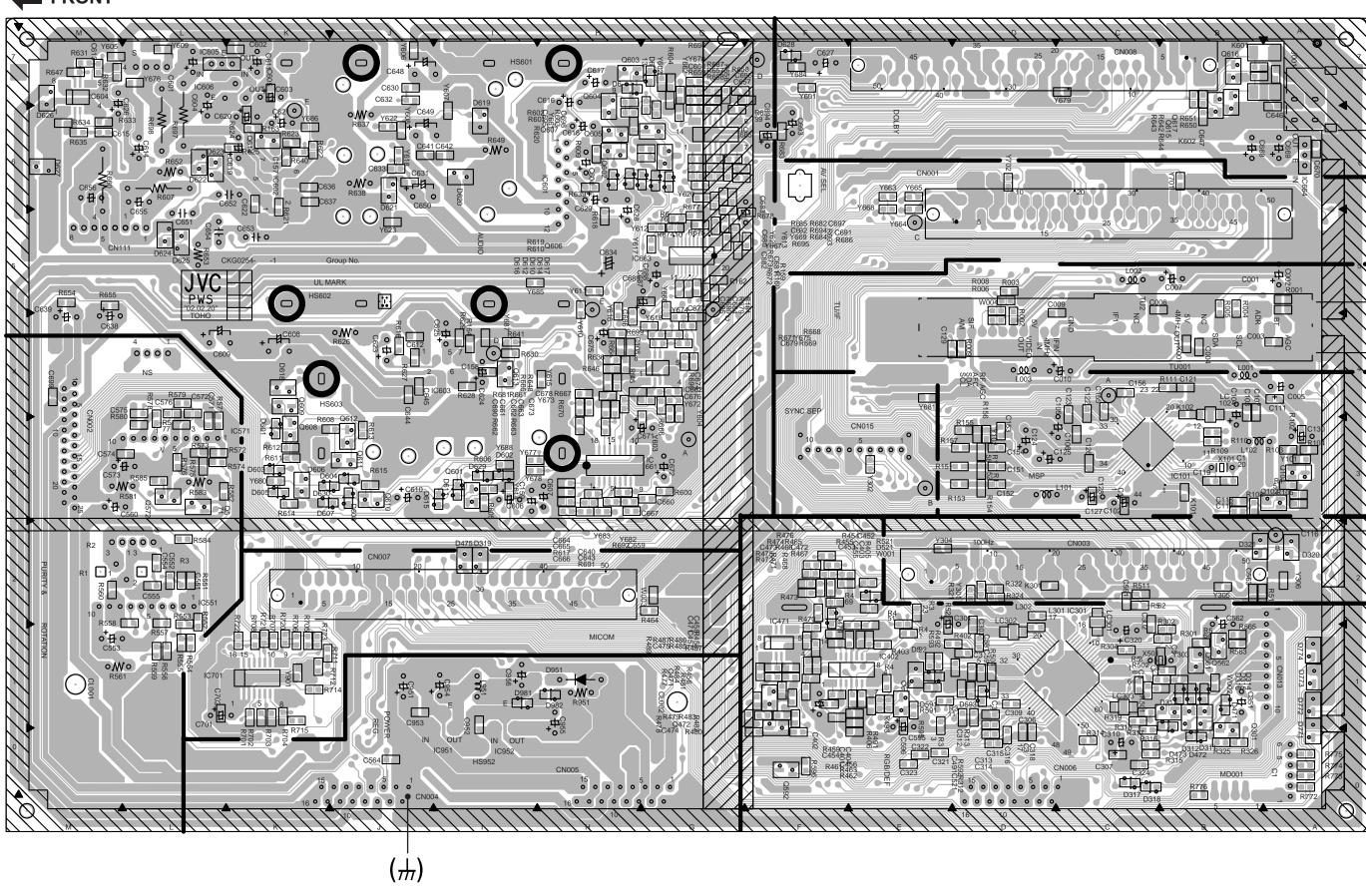
100Hz PWB CIRCUIT DIAGRAM





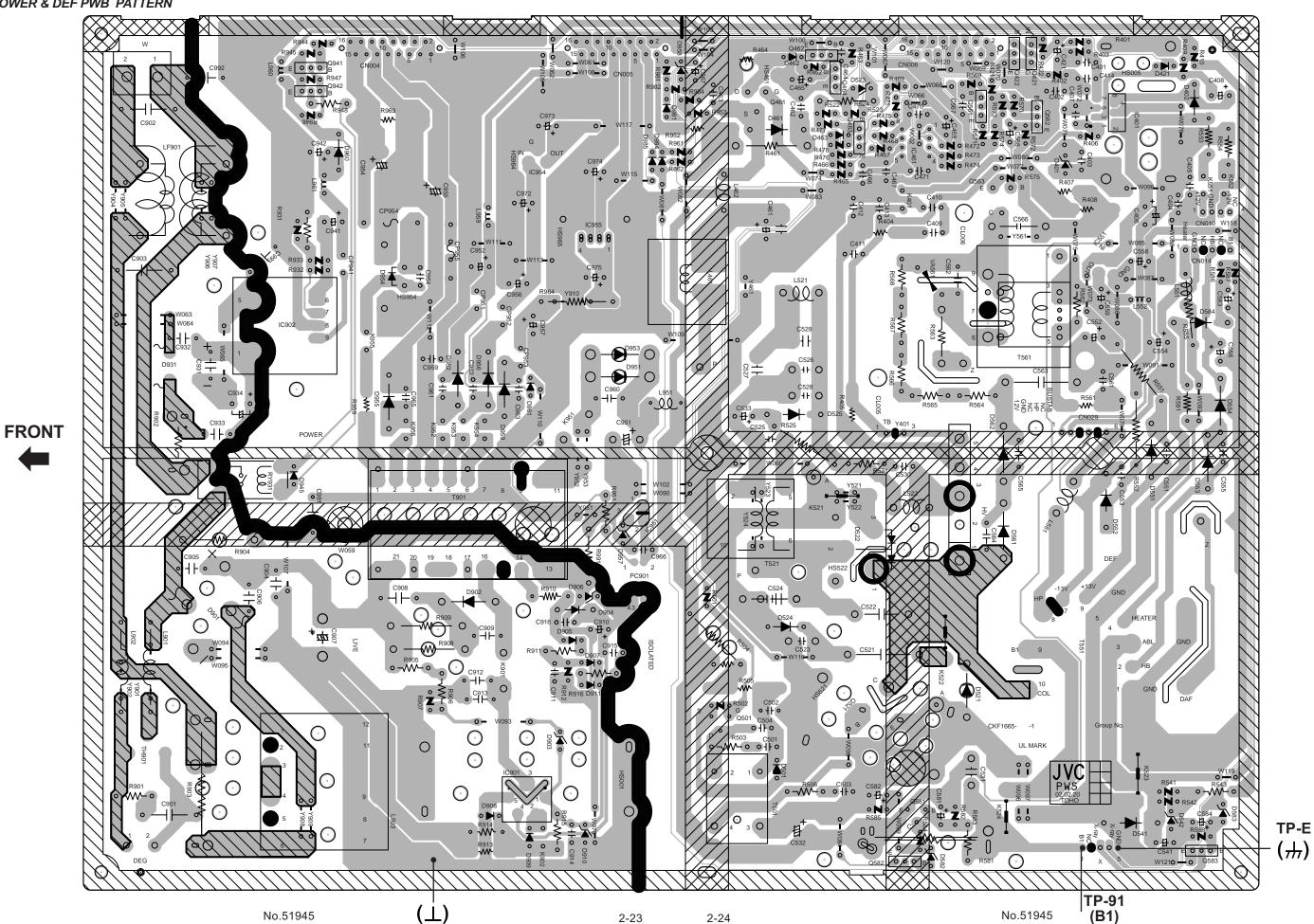
#### PATTERN DIAGRAMS MAIN PWB PATTERN



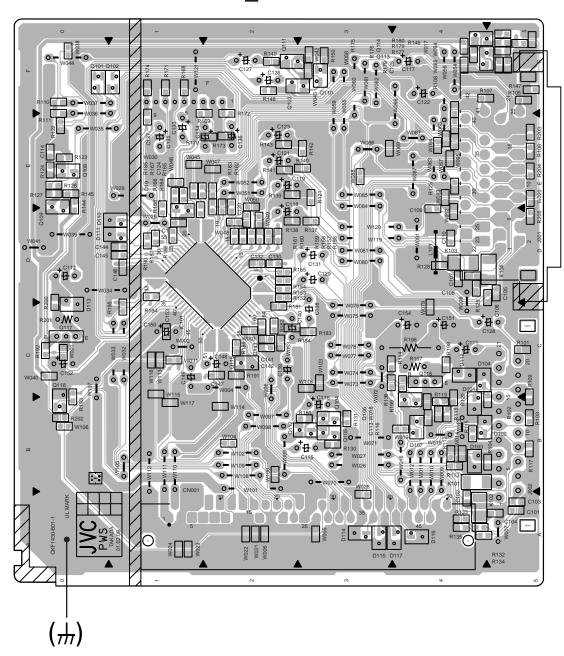


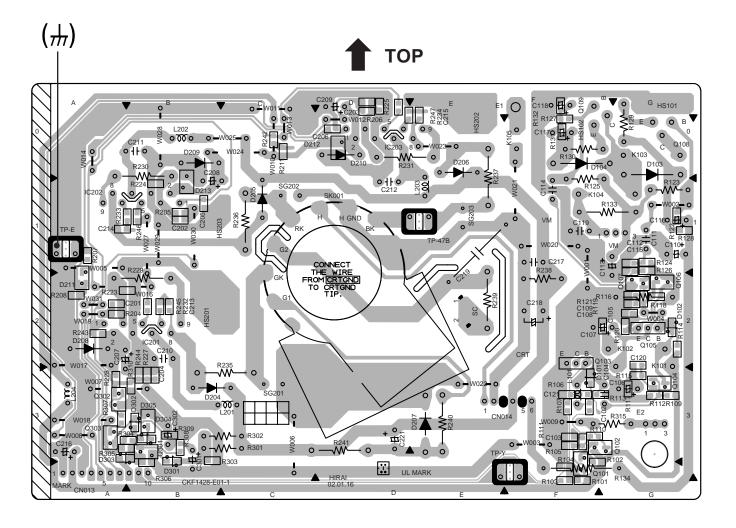
AV32H20EUS AV28H20EUS AV28H20EUB AV32H20EUS AV28H20EUS AV28H20EUB

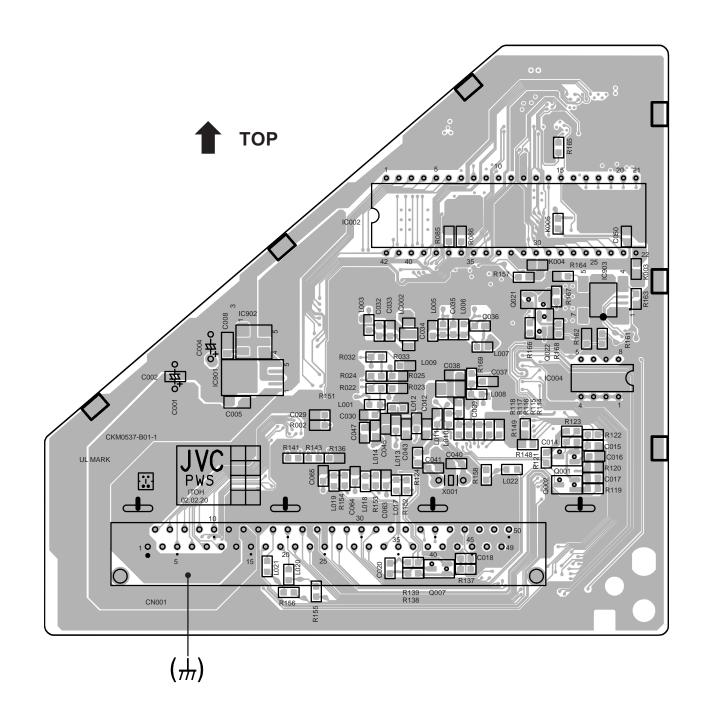
#### POWER & DEF PWB PATTERN

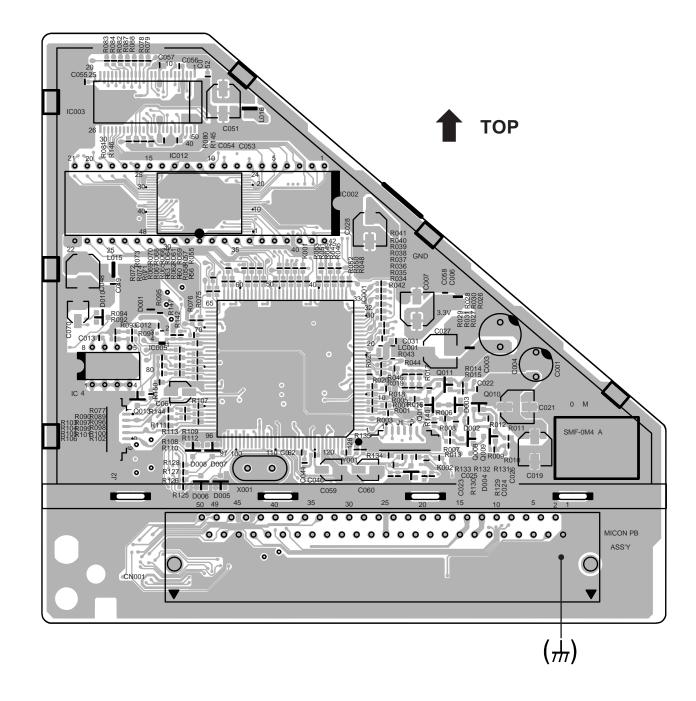


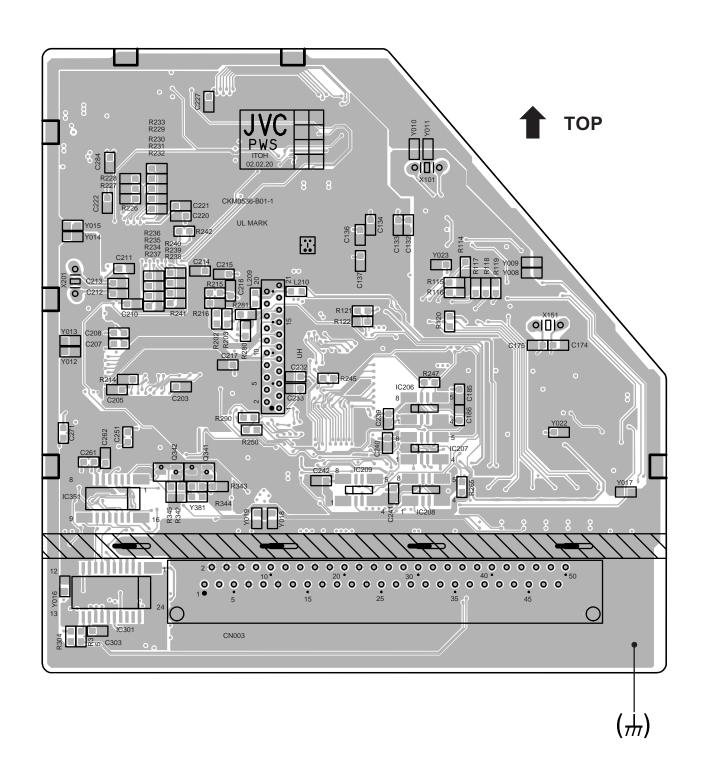


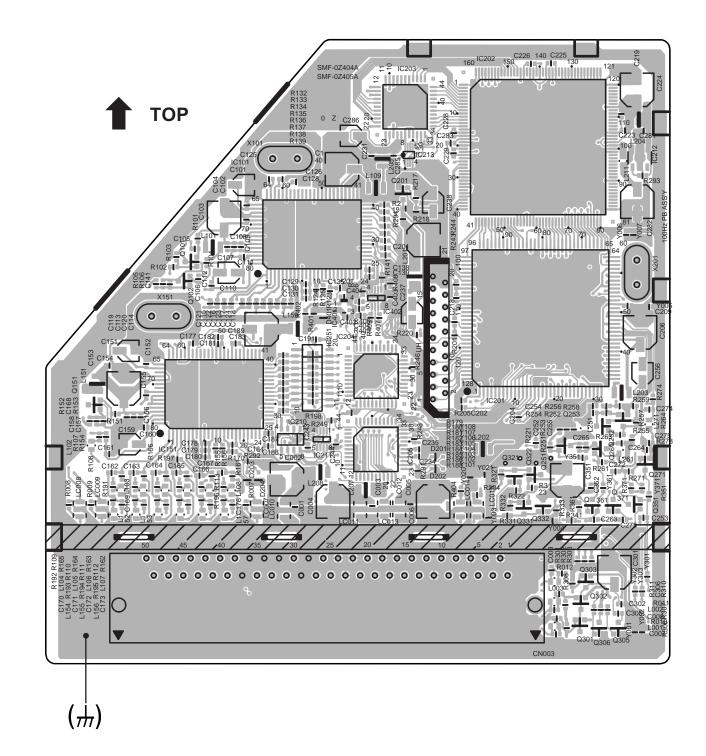














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# **PARTS LIST**

## **CAUTION**

- The parts identified by the △ symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

#### ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

	RESISTORS	CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	HV CAP.	High Voltage Capacitor
HVR	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CHVR	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP.R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	К	М	N	R	Н	Z	Р
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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■ PACKING PARTS LIST······ 55

# **USING PW BOARD & REMOTE CONTROL UNIT**

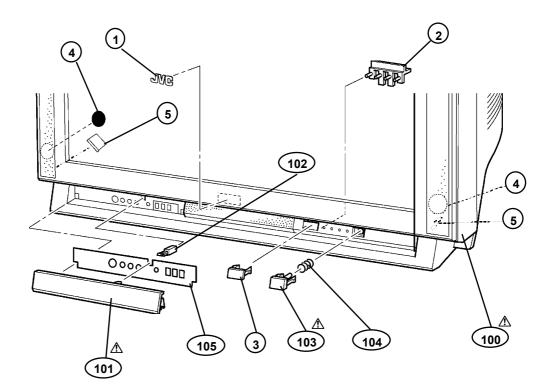
Model PWB ASS'Y	AV32H20EUS	AV28H20EUS	AV28H20EUB
MAIN PWB	SMF-1401A-U2	SMF-1402A-U2	<b>←</b>
POWER & DEF. PWB	SMF-2401A-U2	SMF-2402A-U2	<b>—</b>
CRT SOCKET PWB	SMF-3401A-U2	SMF-3402A-U2	<b>←</b>
FRONT CONTROL PWB	SMF-8401A-U2	SMF-8402A-U2	←
MICOM PWB	SMF0M401 A-U2	<b>←</b>	<b>←</b>
AV SW PWB	SMF0S401A-U2	<b>←</b>	<b>←</b>
100Hz PWB	SMF0Z405A-U2	<del></del>	<b>←</b>
REMOTE CONTROL UNIT	RM-C54H-1C	<del></del>	RM-C50-1C

# **EXPLODED VIEW PARTS LIST**

# AV32H20EUS

⚠ Ref.No.	Part No.	Part Name	Description
1 2 3 4 5 5 <u>A</u> 100 <u>A</u> 101 102	LC 403 54-003A-C LC 305 80-001C-C LC 305 79-001B-C AE M41 22-001A-E AE M40 69-A01-E LC 103 76-020A-U LC 202 65-017A-U CM 482 29-00A-C	JVC MARK LED LENS REMOCON WINDOW CAB SPACER SPACER FRONT CABINET ASSY DOOR DOOR LATCH	(x 2) (x 2) Inc. No. 101~105 (SERVICE)
⚠ 103 104 105	LC30578-007B-U AEM3149-001-E LC31109-006A-U	POWER KNOB SPRING CONTROL SHEET	(SERVICE)

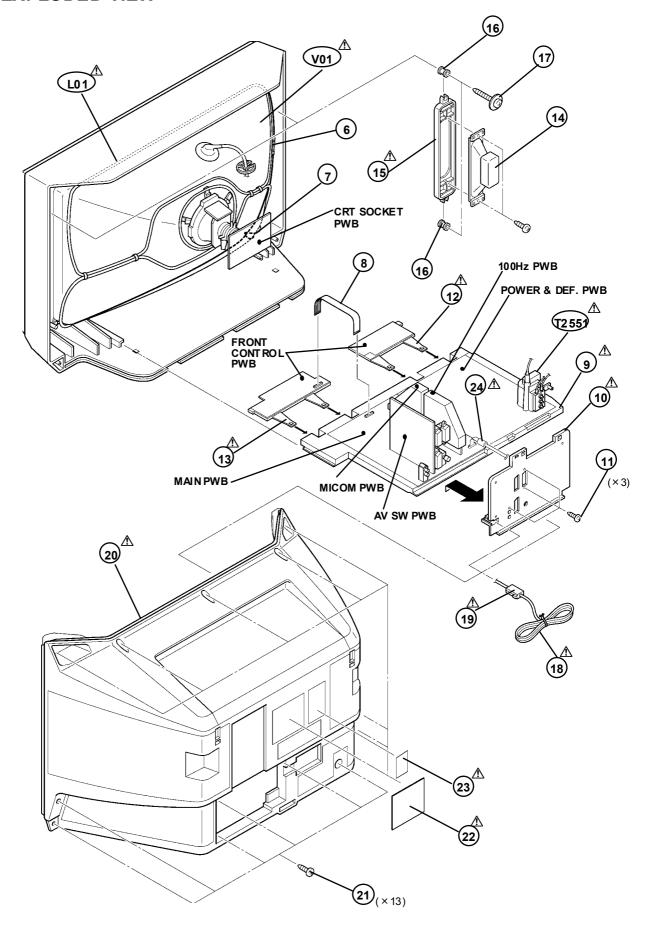
# **EXPLODED VIEW**



#### AV32H20EUS ⚠ Ref.No. Part No. Part Name Description ⚠ V01 ⚠ L01 W7 6QD D25 7XV4 ITC TUBE (C) Inc. DY, PC MAGNET, WEDGE QQW0105-001 DEGAUSSING COIL QQ H01 27-001 WJ Y00 01-010A **⚠** T2551 H. V. TRANSF. BRAIDED ASSY BRAIDED SUB ASSY 6 WJ Y00 13-002A 8 <u>A</u> 9 CHFD1 25-18BD LC107 16-002F-U LC107 17-005D-U FFC WIRE CHASSIS BASE TERMINAL BOARD CN-1 ⚠ 10 TAPPING SCREW CONTROL BASE L CONTROL BASE R 11 **∆** 12 QY SBS B30 12M LC 103 80-001C-U LC 103 80-002B-U (x3)⚠ 13 QA S00 88-001 LC 107 20-001D-U LC 402 26-003A-H SP EAK ER AD APT ER 14 15 SP01-02(x2)(x 2) (x 4) (x 4) CN-PW ⚠ 16 SPACER LC 405 06-001A QMPK1 60-185-JC TAPPING SCREW POWER CORD 17 ⚠ 18 <u>↑</u> 19 <u>↑</u> 20 CM 466 18-A01-E LC 103 78-004B-U POWER CORD CLAMP REAR COVER 21 QY SBSA G40 16N TAPPING SCREW (x 13)⚠ 22⚠ 23⚠ 24 LC 203 79-027A-U LC 307 89-002B-U QQ R04 91-001 RATING LABEL WARNING LABEL

FILTER

# **EXPLODED VIEW**



# AV32H20EUS

# PRINTED WIRING BOARD PARTS LIST

■ MAIN  A Symbol No.		ASS'Y Part Name	(SMF-1401A-U2) Description
RES	ISTOR		·
R1004-06 R1008-09 R1102 R1108 R1104 R1105 R1106 R1108	NRSA63J-101X NRSA63J-0R0X NRSA63J-0R0X NRSA63J-222X NRSA63J-102X NRSA63J-561X NRSA63J-331X NRSA63J-102X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccc} 100\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 2.2\text{K}\Omega & 1/16\text{W} & \text{J} \\ 1\text{k}\Omega & 1/16\text{W} & \text{J} \\ 560\Omega & 1/16\text{W} & \text{J} \\ 330\Omega & 1/16\text{W} & \text{J} \\ 1\text{k}\Omega & 1/16\text{W} & \text{J} \\ \end{array}$
R1109-11 R1151 R1153 R1156 R1158-59 R1161 R1301-02 R1308	NRS:63J-101X NRS:63J-101X NRS:63J-101X NRS:63J-0R0X NRS:63J-0R0X NRS:63J-0R0X NRS:63J-101X NRS:63J-273X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccc} 100\Omega & 1/16W & J \\ 100\Omega & 1/16W & J \\ 100\Omega & 1/16W & J \\ 0.0\Omega & 1/16W & J \\ 100\Omega & 1/16W & J \\ 27K\Omega & 1/16W & J \\ \end{array}$
R1304 R1311 R1312 R1313 R1314 R1315-17 R1318 R1319	NRS:63J-102X NRS:63J-331X NRS:63J-273X NRS:63J-183X NRS:63J-211X NRS:63J-101X NRS:63J-562X NRS:63J-183X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccc} 1 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 330\Omega & 1/16 \text{W} & \text{J} \\ 27 k\Omega & 1/16 \text{W} & \text{J} \\ 18 k\Omega & 1/16 \text{W} & \text{J} \\ 22 \Omega_{\Omega} & 1/16 \text{W} & \text{J} \\ 100\Omega & 1/16 \text{W} & \text{J} \\ 5.6 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 18 k\Omega & 1/16 \text{W} & \text{J} \end{array}$
R1321-22 R1325 R1326 R1401-02 R1408-04 R1405-06 R1451 R1454	NRS:63J-0R0X NRS:63J-101X NRS:63J-82X NRS:63J-102X NRS:63J-331X NRS:63J-102X NRS:63J-821X NRS:63J-821X NRS:63J-472X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccc} 0.0\Omega & 1/16\text{W} & \text{J} \\ 100\Omega & 1/16\text{W} & \text{J} \\ 6.8\text{K}\Omega & 1/16\text{W} & \text{J} \\ 1\text{K}\Omega & 1/16\text{W} & \text{J} \\ 330\Omega & 1/16\text{W} & \text{J} \\ 1\text{K}\Omega & 1/16\text{W} & \text{J} \\ 820\Omega & 1/16\text{W} & \text{J} \\ 4.7\text{K}\Omega & 1/16\text{W} & \text{J} \\ \end{array}$
R1455-56 R1457 R1458 R1459 R1461 R1462 R1463 R1464	NRS:63J-123X NRS:63J-392X NRS:63J-123X NRS:63J-123X NRS:63J-123X NRS:63J-153X NRS:63J-124X NRS:63J-563X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccc} 12 k\Omega & 1/16 W & J \\ 3.9 k\Omega & 1/16 W & J \\ 12 k\Omega & 1/16 W & J \\ 4.7 k\Omega & 1/16 W & J \\ 12 k\Omega & 1/16 W & J \\ 15 k\Omega & 1/16 W & J \\ 120 k\Omega & 1/16 W & J \\ 56 k\Omega & 1/16 W & J \\ \end{array}$
R1465-66 R1467 R1468 R1469 R1470 R1471 R1477 R1473	NRSA63J-224X NRSA63J-563X NRSA63J-224X NRSA63J-683X NRSA63J-223X NRSA63J-273X NRSA63J-682X NRSA63J-123X	MG R MG R MG R MG R MG R MG R MG R	220kΩ 1/16W J 56kΩ 1/16W J 220kΩ 1/16W J 220kΩ 1/16W J 22kΩ 1/16W J 22kΩ 1/16W J 27kΩ 1/16W J 6.8kΩ 1/16W J 12kΩ 1/16W J
R1474 R1475 R1476-78 R1479 R1480 R1481 R1482 R1483	NRS:63J-563X NRS:63J-153X NRS:63J-123X NRS:63J-154X NRS:63J-823X NRS:63J-472X NRS:63J-272X NRS:63J-472X NRS:63J-472X	MG R MG R MG R MG R MG R MG R MG R	56kΩ 1/16W J 15kΩ 1/16W J 12kΩ 1/16W J 12kΩ 1/16W J 150kΩ 1/16W J 82kΩ 1/16W J 4.7kΩ 1/16W J 2.7kΩ 1/16W J 4.7kΩ 1/16W J
R1484 R1485 R1486 R1487 R1489 R1491 R1492 R1493	NRSA63J-473X NRSÆ3J-123X NRSÆ3J-472X NRSÆ3J-333X NRSÆ3J-333X NRSÆ3J-372X NRSÆ3J-562X NRSÆ3J-183X	MG R MG R MG R MG R MG R MG R MG R	47kΩ 1/16W J 12kΩ 1/16W J 4.7kΩ 1/16W J 33kΩ 1/16W J 33kΩ 1/16W J 4.7kΩ 1/16W J 5.6kΩ 1/16W J 18kΩ 1/16W J

Δ	Symbol No.	Part No.	Part Name	Description
_	RESI	STOR		
	R1501 R1504 R1511 R1512 R1521 R1522 R1551 R1552	NRSA63J-OROX NRSA63J-102X NRSA63J-152X NRSA63J-332X NRSA63J-223X NRSA63J-562X NRSA63J-100X NRSA63J-124X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 0.0\Omega & 1/16W & J \\ 1k\Omega & 1/16W & J \\ 1.5k\Omega & 1/16W & J \\ 3.3k\Omega & 1/16W & J \\ 22k\Omega & 1/16W & J \\ 5.6k\Omega & 1/16W & J \\ 10\Omega & 1/16W & J \\ 120k\Omega & 1/16W & J \\ \end{array}$
	R1553 R1554 R1555 R1556 R1557 R1558 R1559 R1560	NRSA63J-683X NRSA63J-562X NRSA63J-333X NRSA63J-472X NRSA63J-562X NRSA63J-104X NRSA63J-154X NRSA63J-100X	MG R MG R MG R MG R MG R MG R MG R	68kΩ 1/16W J 5.6kΩ 1/16W J 33kΩ 1/16W J 4.7kΩ 1/16W J 5.6kΩ 1/16W J 100kΩ 1/16W J 150kΩ 1/16W J 10Ω 1/16W J
	R1561 R1562 R1563 R1564 R1565 R1591 R1592 R1595	QRN143J-OROX NRSA63J-683X NRSA63J-103X NRSA63J-223X NRSA63J-561X NRSA63J-561X NRSA63J-332X NRSA63J-222X	C R MG R MG R MG R MG R MG R MG R	0.Ω 1/4W J 68kΩ 1/16W J 10kΩ 1/16W J 22kΩ 1/16W J 5.6kΩ 1/16W J 56ΩΩ 1/16W J 3.3kΩ 1/16W J 2.2kΩ 1/16W J
	R1596 R1601 R1602 R1603 R1604 R1605 R1606 R1609	NRSA63J-104X NRSA63J-273X NRSA63J-103X NRSA63J-273X NRSA63J-103X NRSA63J-473X NRSA63J-273X NRSA63J-104X	MG R MG R MG R MG R MG R MG R MG R	100kΩ 1/16W J 27kΩ 1/16W J 10kΩ 1/16W J 27kΩ 1/16W J 10kΩ 1/16W J 47kΩ 1/16W J 27kΩ 1/16W J 100kΩ 1/16W J 100kΩ 1/16W J
	R1610 R1618 R1619 R1620 R1637 R1639 R1642-43 R1644	NRSA63J-682X NRSA63J-333X NRSA63J-104X NRSA63J-562X QRK126J-2R2X NRSA63J-561X NRSA63J-681X NRSA63J-104X	MG R MG R MG R C R MG R MG R MG R	6.8kΩ 1/16W J 33kΩ 1/16W J 100kΩ 1/16W J 5.6kΩ 1/16W J 2.2Ω 1/2W J 56kΩ 1/16W J 68kΩ 1/16W J 100kΩ 1/16W J
	R1645-46 R1649 R1650-51 R1654-55 R1664-65 R1666 R1667 R1668	NRSA63J-OROX QRK126J-2R2X NRSA63J-103X NRSA63J-OROX NRSA63J-103X NRSA63J-473X NRSA63J-183X NRSA63J-473X	MG R C R MG R MG R MG R MG R MG R	0. ΩΩ 1/16W J 2. ΩΩ 1/2W J 10 kΩ 1/16W J 0. ΩΩ 1/16W J 10 kΩ 1/16W J 47 kΩ 1/16W J 18 kΩ 1/16W J 47 kΩ 1/16W J
	R1669 R1670-71 R1672 R1673 R1675 R1677-78 R1679 R1680	NRSA63J-183X NRSA63J-104X NRSA63J-223X NRSA63J-273X NRSA63J-103X NRSA63J-103X NRSA63J-223X NRSA63J-223X	MG R MG R MG R MG R MG R MG R MG R	18ΚΩ 1/16W J 100ΚΩ 1/16W J 22ΚΩ 1/16W J 27ΚΩ 1/16W J 10ΚΩ 1/16W J 10ΚΩ 1/16W J 22ΚΩ 1/16W J 27ΚΩ 1/16W J
	R1684 R1687 R1701-02 R1703-04 R1705-08 R1711-12 R1714-15 R1720-22	NRSA63J-OROX NRSA63J-103X NRSA63J-102X NRSA63J-102X NRSA63J-103X NRSA63J-101X NRSA63J-102X NRSA63J-102X	MG R MG R MG R MG R MG R MG R MG R	0.Ω 1/16W J 0.Ω 1/16W J 10kΩ 1/16W J 1kΩ 1/16W J 10kΩ 1/16W J 10kΩ 1/16W J 1kΩ 1/16W J 1kΩ 1/16W J

Δ	Symbol No.	Part No.	Part Name	Description
	RESI	STOR		_
	R1772-76 R1951	NRSA63J-221X QRK126J-220X	MG R C R	220Ω 1/16W J 22Ω 1/2W J
	CAPA	CITOR		
	C1001 C1002 C1004 C1005 C1006 C1007 C1009 C1010	NCB31HK-222X QETNLHM-106Z NCB31CK-104X QETNLCM-108Z NCB31HK-103X QETNLHM-106Z NCB31CK-104X QETNLHM-106Z	C CAP. E CAP. C CAP. E CAP. E CAP. C CAP. E CAP. E CAP. C CAP.	2200pF 50V K 10µF 50V M 0.1µF 16V K 1000µF 16V M 0.01µF 50V K 10µF 50V M 0.1µF 16V K 10µF 50V M
	C1101 C1102 C1103 C1104 C1105 C1106-07 C1108 C1111	NCB31CK-104X QETN1HM-106Z NCB31CK-104X QETN1HM-107Z QETN1HM-106Z NCB31CK-104X NDC31HJ-680X NCB31HK-103X	C CAP. E CAP. C CAP. E CAP. E CAP. C CAP. C CAP. C CAP.	0.1µF 16V K 10µF 50V M 0.1µF 16V K 100µF 16V M 10µF 50V M 0.1µF 16V K 68pF 50V J 0.01µF 50V K
	C1116 C1117-18 C1119-20 C1121 C1122-23 C1124-25 C1126 C1127	NCB31HK-472X NCB31HK-103X NDC31HJ-2R0X NCB31HX-103X NDC31HJ-102X QETN1HM-106Z NCB31CK-104X QETN1HM-106Z	C CAP. C CAP. C CAP. C CAP. C CAP. E CAP. C CAP. E CAP.	4700F 50V K 0.01µF 50V K 2.0pF 50V J 0.01µF 50V K 100µF 50V J 10µF 50V M 0.1µF 16V K 10µF 50V M
	C1128 C1129 C1130 C1151-54 C1155-56 C1301 C1302-03 C1305-09	NCB31CK-104X NCF31AZ-105X QETNLHM-106Z NCF31AZ-105X NDC31HJ-102X QETNLCM-107Z NCB31CK-104X NCB31CK-104X	C CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. C CAP. C CAP.	0.1µF 16V K 1µF 10V Z 10µF 50V M 1µF 10V Z 1000pF 50V J 100µF 16V M 0.1µF 16V K 0.1µF 16V K
	C1310 C1311 C1312 C1313-15 C1316-18 C1320 C1321-23 C1324	QETMLAM-228Z NCB31CK-683X NDC31HJ-221X NCB31HK-223X NCB31HK-103X QETM0JM-228Z NCB31HK-223X NDC31HJ-820X	E CAP. CHIP CAP. C CAP.	2200 F 10V M 0.08 F 16V K 220 F 50V J 0.022 F 50V K 0.01 F 50V K 2200 F 6.3V M 0.022 F 50V K 82 P 50V J
	C1351 C1401 C1402 C1403-04 C1453 C1454 C1455-56 C1457	QENCIEM-106Z NCB31CK-104X QETNICM-107Z NCB31CK-104X NCB31HK-103X NCB31EK-333X NCB31CK-104X NCB31EK-333X	BP E CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. C CAP. C CAP.	10µF 25V M 0.1µF 16V K 100µF 16V M 0.1µF 50V K 0.01µF 50V K 0.033µF 25V K 0.1µF 16V K
	C1458 C1471 C1472 C1473 C1474 C1475 C1491 C1501-02	NCB31CK-104X NCB31CK-104X NCB31HK-103X NCB31CK-104X NCB31CK-333X NCB31CK-104X NCB31CK-104X NCB31EK-473X NDC31HJ-150X	C C.P. C C.P. C C.P. C C.P. C C.P. C C.P. C C.P.	0.1µF 16V K 0.1µF 16V K 0.01µF 50V K 0.1µF 16V K 0.033µF 25V K 0.1µF 16V K 0.047µF 25V K 15pF 50V J
	C1551-52 C1553 C1554-55 C1560	NCF31CZ-224X QETN1EM-476Z NCF31CZ-224X QETN1CM-107Z	C CAP. E CAP. C CAP. E CAP.	0.22µF 16V Z 47µF 25V M 0.22µF 16V Z 100µF 16V M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPA	CITOR		
	C1561 C1562 C1564 C1591 C1596 C1600 C1606-07 C1616	NDC31HJ-561X QETN1HM-105Z NCB31CK-104X NDC31HJ-471X NCB31CK-104X QETN1HM-226Z QETN10M-227Z QETN1HM-105Z	C CAP. E CAP. C CAP. C CAP. C CAP. E CAP. E CAP. E CAP.	560pF 50V J 1µF 50V M 0.1µF 16V K 470pF 50V J 0.1µF 16V K 22µF 50V M 220µF 16V M 1µF 50V M
	C1618 C1628 C1629 C1630 C1632 C1634 C1641-42 C1646-47	QETMLHM-105Z QETMLHM-107Z QETMLHM-106Z NCF21HZ-224X NCF21HZ-224X QETMLHM-228 NCF21HZ-224X NCB31HK-103X	E CAP. E CAP. C CAP.	1µF 50V M 100µF 50V M 10µF 50V M 0.22µF 50V Z 0.22µF 50V Z 2200µF 50V M 0.22µF 50V Z 0.01µF 50V K
	C1648-49 C1673-74 C1675 C1676-77 C1678-79 C1680 C1681 C1682	QETMLVM-108 NCF31 AZ-105X QETMLEM-476Z NDC31HJ-151X NDC31HJ-150X NCF31AZ-105X NCB31HK-332X NCB31EK-333X	E CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. C CAP. C CAP.	1000 µF 35V M 1µF 10V Z 47µF 25V M 1500F 50V J 15pF 50V J 1µF 10V Z 3300pF 50V K 0.033 µF 25V K
	C1688 C1684 C1685 C1686 C1687 C1688 C1689 C1695	QETMLEM-476Z NCB31HK-332X NCB31EK-333X NCF31AZ-105X QETMLHM-106Z QETMLEM-476Z NCB31CK-104X NRSA63J-0ROX	E CAP. C CAP. C CAP. C CAP. E CAP. E CAP. C CAP. MG R	47μF 25V M 3300pF 50V K 0.033 μF 25V K 1μF 10V Z 10μF 50V M 47μF 25V M 0.1μF 16V K 0.0Ω 1/16W J
	C1698 C1699 C1701 C1702 C1951 C1952-53 C1954 C1955	NRSA63J-OROX NCB31HK-103X QETMLHH-106Z NCB31CK-563X QETMLCM-477Z NCB31CK-104X QETMLAM-477Z QETMLAM-227Z	MG R C CAP. E CAP. CHIP CAP. E CAP. E CAP. E CAP.	$\begin{array}{ccccc} 0.0\Omega & 1/16W & J \\ 0.01\mu F & 50V & K \\ 10\mu F & 50V & M \\ 0.056 & \mu F & 16V & K \\ 470\mu F & 16V & K \\ 470\mu F & 16V & K \\ 470\mu F & 10V & M \\ 220\mu F & 10V & M \\ \end{array}$
	C1956	QETNLAM-107Z	E CAP.	100μF 10V M
	COIL	-		
	L1001 L1002-03 L1101 L1102 L1301-02 L1951	QQL244K-270Z QQL244K-100Z QRN143J-0R0X QQL244K-4R7Z NQL092K-1R5X QQL26AM-5R6Z	PEAKING COIL COIL C R COIL INDUCTOR CHOKE COIL	10 <sub>μ</sub> H K 0.0Ω 1/4W J 4.7μH K
	DIOD	ÞΕ		
	D1317-18 D1319 D1320-21 D1471-74 D1475 D1521 D1591 D1592	MA111-X MA3036-X MA3056/M/-X MA111-X MA3240/M/-X MA111-X MA111-X MA3051/M/-X	SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE CHIP ZENER DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE	
	D1593 D1602 D1610-11 D1614-15 D1617 D1619-20	MA111-X MA111-X MA111-X MA111-X MA111-X MA3330/L/-X	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE	

Δ	Symbol No.	Part No.	Part Name	Description
	DIOD	ÞΕ		
	D1771-74 D1951 D1981-82	MA3056/M/-X 1SR35-400A-T2 MA111-X	ZENER DIODE SI.DIODE SI.DIODE	
	TRAN	ISISTOF	₹	
	01101-02 01301 01471-72 01561 01562 01591 01592 01601-02	25C2412K/QR/-X 25A1037AK/QR/-X 25C2412K/QR/-X 25C2412K/QR/-X 25A1037AK/QR/-X 25A1037AK/QR/-X 25C2412K/QR/-X 25A1037AK/QR/-X	SI. TRANSISTOR	
	Q1604-05 Q1606 Q1607 Q1615 Q1616-17	DTC124EKA-X 2SC2412K/QR/-X DTA124EKA-X 2SA1037AK/QR/-X DTC323TK-X	DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR	
	IC			
	IC1101 IC1301 IC1402 IC1471 IC1551 IC1601 IC1662 IC1663	MSP 3415DQGB3GHX SDA3380 BA10324AF-XE BA10358F-XE LA6515 TA8246AH BA4558F-X NJM2150AM-X	I.C (MONO-ANA) I.C (M) I.C (M) I.C (M) I.C (MONO-ANA) I.C (MONO-ANA) I.C (MONO-ANA) I.C (MONO-ANA) I.C (MONO-ANA)	
	IC1701 IC1951 IC1952	JLC1562BF-X BA09T BA08T	I.C(DIGI-MOS) I.C(MONO-ANA) I.C(MONO-ANA)	
	OTHE	RS		
	CN1013 LC1102 LC1301-03 J1001 K1001 K1101-02 K1301 K1601-02	QGA2501C1-10 NQR0431-001X NQR0431-001X QNN0296-001 NQR0389-003X NQR0389-003X NQR0413-003X CE42681-001Y	W TO B CONNE EMI FILTER EMI FILTER PIN JACK FERRITE BEADS FERRITE BEADS BEADS CORE BEADS CORE	
	TU1001 X1101 X1501 Y1612-13	QAU0276-001 CE42546-001Z QAX0549-001Z NCF21CZ-105X	TUNER CRYSTAL CRYSTAL C CAP.	1μF 16V Z

#### ■POWER & DEF. P.W. BOARD ASS'Y

(SMF-2401A-U2)

Δ	Symbol No.	Part No.	(SMF-240 Part Name	<b>1A-U2)</b> Description
_	RESI	STOR		· · · · · · · · · · · · · · · · · · ·
	R2401-02 R2403 R2404 R2405 R2406 R2407 R2408 R2409	QRE141J-562Y QRE141J-222Y QRX01GJ-1RO QRL029J-151 QRE141J-222Y QRX01GJ-2R2 QRX01GJ-1R5 QRE141J-823Y	C R C R MF R OM R C R MF R MF R C R	5.6kQ 1/4W J 2.2kQ 1/4W J 1.0Q 1W J 150Q 2W J 2.2kQ 1/4W J 2.2Q 1W J 82kQ 1/4W J
	R2410 R2421 R2422 R2461 R2462 R2463 R2464 R2464	QRE141J-103Y QRE141J-103Y QRE141J-274Y QRG029J-820 QRE141J-473Y QRE141J-682Y QRX01GJ-3R3 QRE141J-102Y	C R C R OM R C R C R MF R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	R2469 R2471 R2472 R2473 R2474 R2475 R2476 R2477	QRE141J-272Y QRE141J-391Y QRA14CF-1002Y QRE141J-473Y QRE141J-103Y QRE141J-102Y QRE141J-102Y QRE141J-563Y	C R C R MF R C R C R C R C R	2.7kQ 1/4w J 3900 1/4w J 10k0 1/4w F 47k0 1/4w J 10k0 1/4w J 1k0 1/4w J 1kQ 1/4w J 56k0 1/4w J
	R2478 R2501 R2502 R2503 R2504-05 R2506 R2521 R2522	QRE141J-333Y QRE141J-471Y QRE141J-123Y QRE121J-152Y QRL039J-222 QRL039J-222 QRE121J-5R6Y QRE121J-471Y QRE141J-223Y	C R C R C R C R OM R C R C R C R	33kQ 1/4w J 4700 1/4w J 12k0 1/4w J 1.5k0 1/2w J 2.2kQ 3w J 5.6Q 1/2w J 4700 1/2w J 22kQ 1/4w J
<u>^</u>	R2523 R2524 R2525 R2541 R2542 R2543 R2551 R2552	QRE141J-103Y QRC121K-152Z QRL039J-103 QRE141J-182Y QRE141J-222Y QRE121J-272Y QRZ9022-R47 QRZ9022-R47	C R COMP.R OM R C R C R F R F R	10kΩ 1/4w J 1.5kΩ 1/2w K 10kΩ 3w J 1.8kΩ 1/4w J 2.2kΩ 1/4w J 2.7kΩ 1/2w J 0.47 Ω 1w K 0.47 Ω 1w K
Δ	R2555 R2561 R2562 R2563 R2581 R2582 R2588 R2584	QRZ9022-R33 QRG01GJ-220 QRE121J-123Y QRZ0056-103Z QRF154K-4R7 QRE141J-681Y QRE121J-682Y QRE141J-183Y	F R OM R C R COMP R UNF R C R C R	0.33 \Omega  \text{lw}  \text{K} \\ 22\Omega  \text{lw}  \text{J} \\ 12\k\Omega  \text{J/2W}  \text{J} \\ 10\k\Omega  \text{1/2W}  \text{K} \\ 4.7\Omega  \text{1/2W}  \text{J} \\ 6.8\k\Omega  \text{L/2W}  \text{J} \\ 18\k\Omega  \text{L/2W}  \text{J} \\ 18\k\Omega  \text{L/2W}  \text{J} \\ \end{align*}
Δ	R2585 R2586 R2587 R2588 R2591 R2901 R2902 R2908	QRE141J-222Y QRA14CF-6201Y QRA14CF-2801Y QRE141J-103Y QRZ9017-4R7 QRE121J-331Y QRF054K-3R3 QRF104K-3R9	C R MF R C R F R C R UNF R UNF R	2.2 kΩ 1/4w J 6.2 kΩ 1/4w F 2.8 kΩ 1/4w F 10 kΩ 1/4w J 4.7 Ω 1/4w J 33 Ω 1/2w J 3.3 Ω 5w K 3.9 Ω 10 W K
Δ	R2904 R2905-06 R2908-09 R2910 R2911 R2914 R2915 R2916	QRL039J-683 QRE121J-474Y QRL039J-823 QRZ9017-100 QRE121J-152Y QRM059J-R10 QRE121J-681Y QRE121J-332Y	OM R C R OM R F R C R MP R C R C R	68kΩ 3W J 470kΩ 1/2W J 82kΩ 3W J 10 Ω 1/4W K 1.5kΩ 1/2W J 0.10Ω 5W J 680Ω 1/2W J 3.3kΩ 1/2W J

<u>∧</u> Symi	bol No. F	Part No.	Part Name	Description
R	ESI:	STOR		
R29: R29: R29: R29: R29: R29: R29:	332 ( 333 ( 44 ( 45 ( 46 ( 51 (	RE141J-1ROY RE141J-1R5Y RE141J-1R8Y RE141J-103Y RE141J-563Y RE141J-103Y RE121J-102Y RK139J-223	C R C R C R C R C R C R C R C R	$\begin{array}{ccccc} 1.0_{\Omega} & 1/4\text{W} & \text{J} \\ 1.5\Omega & 1/4\text{W} & \text{J} \\ 1.8\Omega & 1/4\text{W} & \text{J} \\ 10\text{K}\Omega & 1/4\text{W} & \text{J} \\ 56\text{K}\Omega & 1/4\text{W} & \text{J} \\ 10\text{K}\Omega & 1/4\text{W} & \text{J} \\ 1\text{K}\Omega & 1/2\text{W} & \text{J} \\ 22\text{K}\Omega & 3\text{W} & \text{J} \\ \end{array}$
R299 R299 R298 R298	54 ( 81 ( 82 (	QRE141J-474Y QRE141J-103Y QRE141J-153Y QRE141J-102Y QRZ9046-825Z	C R C R C R C R C R	470kΩ 1/4n J 10kΩ 1/4n J 15kΩ 1/4n J 1kΩ 1/4n J 8.2MΩ 1/2n K
С	APA	CITOR		
C24( C24( C24( C24( C24( C24; C24;	05 (06 (000) 008 (009-10 (01) 111 (10)	0CZ0120-104Z 0C31HJ-820Z DETMLVM-108 DETMLVM-337Z QEV71HJ-474Z OFL(2AJ-104Z QEB31HK-682Z QETM1HM-105Z	C CAP. C CAP. E CAP. E CAP. M CAP. M CAP. C CAP. E CAP.	0.1µF 25V Z 82pF 50V J 1000µF 35V M 330µF 35V M 0.47µF 50V J 0.1µF 100V J 6800pF 50V K 1µF 50V M
C244 C244 C244 C244 C244 C244	52 (6 63 (7 64 (7 65 (7 66 (7 67 (7	DEZC414-226 DEM72DJ-152Z DEM72DJ-122Z QCZ0120-104Z QEZTNLHM-106Z DEP31HJ-272Z QETNLEM-476Z	E CAP. M CAP. M CAP. C CAP. E CAP. PP CAP. M CAP. E CAP.	22 <sub>1</sub> F 50V M 1500F 200V J 1200PF 200V J 0.1µF 25V Z 10µF 50V M 2700PF 50V J 1000PF 50V J 47µF 25V M
C24: C24: C25( C25( C25( & C25: & C25:	71 (0) 01 (0) 02 (0) 03 (0) 21 (0) 22 (0)	QCS31HJ-470Z QFLC1HJ-103Z QCB32HK-331Z QFM72DK-103 QFV71HJ-224Z QFZ0122-112 QFZ0200-123 QFM72DK-393	C CAP. M CAP. C CAP. M CAP. M CAP. MPF CAP. MPP CAP. MPP CAP. MPP CAP.	$\begin{array}{cccc} 47 p F & 50V & J \\ 0.01 \mu F & 50V & J \\ 330 p F & 500V & K \\ 0.01 \mu F & 200V & K \\ 0.02 \mu F & 50V & J \\ 110 p F 1.8 k V H \pm 3\% \\ 0.012 \mu F 1.5 k V H \pm 3\% \\ 0.039 \mu F & 200V & K \\ \end{array}$
△ C255 C255 C255 C255 C255 C255 C255	26 ( 27 ( 29 ( 30 ( 31 ( 32 (	QFP32JJ-183 QFZ0197-204 QFZ0194-154 QFZ0194-154 QGB32HK-561Z QFZ0194-534 QETM2CM-227 QETM2CM-475Z	PP CAP. MPP CAP. MPP CAP. MPP CAP. C CAP. MPP CAP, E CAP. E CAP.	$\begin{array}{cccc} 0.018 \mu F & 630 V & J \\ 0.2 \mu F & 250 V & J \\ 0.15 \mu F & 250 V & J \\ 0.15 \mu F & 250 V & J \\ 560 \mu F & 500 V & K \\ 0.53 \mu F & 250 V & J \\ 22 \mu F & 160 V & M \\ 4.7 \mu F & 250 V & M \\ \end{array}$
C252 C252 C252 C253 C253 C253 C253	51 ( 52 ( 53 ( 54 ( 55 (	QENCIHM-105Z QCB32HK-152Z QETNICM-108Z QCB32HK-152Z QCB32HK-152Z QCB32HK-102Z QCB32HK-102Z QETN2EM-106Z QETNICM-477Z	E CAP. C CAP. E CAP. C CAP. E CAP. C CAP. E CAP. E CAP. E CAP. E CAP.	1µF 50V M 1500F 500V K 1000µF 16V M 15000F 500V K 1000µF 16V M 1000µF 500V K 10µF 250V M 470µF 16V M
C255 C256 C256 C256 C256 C256 A C290	61 (81 (82 (83 (84 (84 (84 (84 (84 (84 (84 (84 (84 (84	QEHRICM-227Z QELUCAJ-223Z QETNICM-107Z QETNIEM-476Z QETNIAM-106Z QETNIAM-227Z QEZ9072-473 QEZ9072-104	E CAP. M CAP. E CAP. E CAP. E CAP. E CAP. E CAP. MM CAP. MF CAP.	220µF 16V M 0.022µF 100V J 100µF 16V M 47µF 25V M 10µF 100V M 220µF 10V M 0.47µFAC275V K 0.1µFAC275V K
<u>∧</u> C290	03 (	QFZ9072-473	MM CAP.	0.47 <sub>μ</sub> FAC275V K

Δ	Symbol No.	Part No.	Part Name	Description
	CAPA	CITOR		
	C2904 C2905 C2906 C2907 C2908 C2909 C2910 C2911	QCZ9054-472 QCZ9054-472 QCZ9054-472 QEZ0199-227 QCB32HK-103 QCZ0340-391 QETNLHM-476Z QCB31HK-102Z	C CAP. C CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP.	4700pFAC250V Z 4700pFAC250V Z 4700pFAC250V Z 220µF 400V M 0.0µr 500V K 390pF 2kV K 47µF 50V M 1000pF 50V K
Δ Δ Δ	C2912 C2914 C2915 C2916 C2931 C2932 C2933 C2934	QCZ0340-561 QCB31HK-471Z QFLC1HJ-104Z QCB32HK-152Z QCZ9054-472 QCZ9054-472 QCZ9054-472 QCZ9054-472 QETM2GM-226	C CAP. C CAP. M CAP. C CAP. C CAP. C CAP. C CAP. E CAP.	560pF 2kV K 470pF 50V K 0.1µF 50V J 1500pF 500V K 4700pFAC250V Z 4700pFAC250V Z 4700pFAC250V Z 22µF 400V M
	C2941 C2942 C2951 C2952 C2955 C2956 C2957 C2959	QTMNICM-477Z QETNIAM-337Z QEZQ203-227 QETNICM-108Z QETNIAM-108Z QETNIAM-108Z QETNIAM-228Z QFV71HJ-684Z	E CAP. MF CAP.	470µF 16V M 330µF 10V M 220µF 160V M 1000µF 16V M 2200µF 35V M 1000µF 10V M 2200µF 10V M
<u>A</u>	C2960 C2972-73 C2974 C2975 C2991 C2993	QCZ0325-821 QETMLAM-477Z QETMOJM-228Z QETMLAM-228Z QCZ9079-222 QCZ9079-471	C CAP. E CAP. E CAP. E CAP. C CAP. C CAP.	820pF 2kV K 470µF 10V M 2200µF 6.3V M 2200µF 10V M 2200pFAC250V M 470pFAC250V K
	TRAN	ISFORME	ĒR	
Δ	T2501 T2551 T2561 T2901	QQRQ882-001 QQHQ127-001 QQR1096-001 QQSQ156-001	HOR.DEF.TRANSF. H.V.TRANSF. DEF.TRANSF SWITCH.TRANSF.	
	COIL	-		
	L2461 L2462 L2521 L2522 L2552 L2561 L2901-02 L2903	QQR1195-001 QQL2028-272 QQL2031-180 QQR1191-001 QQL26AK-2207 QQL2028-272 QQL401K-1007 QQR1200-001	CHOKE COIL CHOKE COIL LINEARITY COIL COIL CHOKE COIL CHOKE COIL CHOKE COIL	22µН К
	L2951 L2959-60 L2961	QQLZ026-460 QQL26AK-220Z QQL26AM-4R7Z	HEATER CHOKE COIL CHOKE COIL	22 <sub>µ</sub> H K
	DIOD	ÞΕ		
	D2402 D2421 D2461 D2462 D2463 D2501 D2521 D2522	15R35-400A-T2 15S133-T2 RGP10J-5025-T3 15S133-T2 15S133-T2 15S81-T5 V11CA-C1 FMV-3FU-F1	SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE	
	D2523 D2524 D2525 D2541 D2542 D2551 D2552 D2553	MTZ.J22B-T2 15R35-400A-T2 RGP10J-5025-T3 RCP10J-5025-T3 MTZJ3.9B-T2 RGP10J-5025-T3 RGP10J-5025-T3 RH15-T3	ZENER DIODE \$1.DIODE \$1.DIODE \$1.DIODE \$1.DIODE \$2ENER DIODE \$1.DIODE \$1.DIODE \$1.DIODE \$1.DIODE	

Δ	Symbol No.	Part No.	Part Name	Description
	DIOD	ÞΕ		
Δ	D2582 D2583 D2584 D2901 D2902 D2904 D2905 D2906	MTZ.J7.5B-T2 MTZ.J7.55-T2 RCP10J-5025-T3 D3S®60 RG1C-LFA1 EU2A-T2 1SS133-T2 MTZ.J27B-T2	ZENER DIODE ZENER DIODE SI. DIODE BRIDGE DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE ZENER DIODE	
Δ	D2907 D2908 D2910 D2911 D2931 D2945 D2951 D2952	155133-T2 155133-T2 MTZJ158-T2 155133-T2 55108/A/60-4101 155133-T2 RU4M1-LFT2 RGP10J-5025-T3	SI. DIODE SI. DIODE SI. DIODE ZENER DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE	
	D2953 D2955 D2956 D2958 D2959 D2960 D2961 D2981	RU4M1-LFT2 RU3YX-LFC4 RGP10J-5025-T3 MTZJ33B-T2 RU3YX-LFC4 15R124-400A-T2 15S133-T2 15S133-T2	SI.DIODE SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	
	D2984 D2985	155133-T2 155133-T2	SI.DIODE SI.DIODE	
	TRAN	ISISTOF	₹	
Δ	Q2421 Q2422 Q2461 Q2462-63 Q2464 Q2501 Q2521 Q2581	DTC124ESA-T 25C1740S/QR/-T 25K2459N-F54 25C1740S/QR/-T 25A933AS/QR/-T BSN304-T 25C5552-RL 25A1208/ST/Z1-T	DIGI.TRANSISTOR \$1.TRANSISTOR F.E.T. \$1.TRANSISTOR \$1.TRANSISTOR \$1.TRANSISTOR F.E.T. \$1.TRANSISTOR \$1.TRANSISTOR	H.OUT
	Q2582 Q2583 Q2941-42	DTC144ESA-T 2SC1740S/QR/-T 2SC1740S/QR/-T	DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
	IC			
Δ	IC2401 IC2461 IC2551 IC2901 IC2902 IC2951 IC2954 IC2955	AN5523 BA10393 BA127 STR-F6667B/F7 OAL0425-001 SE140N BA05T PQ3R013	I.C (M) I.C (MONO-ANA) I.C (MONO-ANA) I.C (HYBRID) P. W.B. MODULE I.C (HYBRID) I.C (MONO-ANA) I.C (MONO-ANA)	
	OTHE	RS		
<u>^</u>	CN2004-06 CN2010 CN2014 CP2951 CP2952 CP2953 CP2955 K2401	QGB1506M1-16 QGA2501C5-04Z QGA2501C5-06Z ICP-M75-Y ICP-M75-Y ICP-M75-Y QQR0621-002Z	CONNECTOR W TO B CONNE EH POST HEADER I.C.PROTECT I.C.PROTECT I.C.PROTECT I.C.PROTECT BEADS CORE	
<u>A</u>	K2522-24 K2901 LF2901 PC2901 RY2931 TH2901	CE41832-001 QQRG579-001 QQR1095-001 PC123FY2 QSKG099-001 QAD0133-9R0	LEAD CORE FERRITE BEADS LINE FILTER I.C(PH.COUPLER) RELAY P.THEMISTOR	_

#### ■CRT SOCKET P.W. BOARD ASS'Y

A Cumbol No	Part No	•	F-3401A-U2)
∆ Symbol No.	Part No.	Part Name	Description
R3101 R3102 R3108 R3104 R3105 R3106 R3107 R3109	NRSA63J-223X NRSA63J-681X NRSA63J-101X NRSA63J-822X NRSA63J-502X NRSA63J-221X NRSA63J-561X NRSA63J-153X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R3110 R3111 R3112 R3113 R3114 R3115 R3116 R3117	NRSA63J-222X NRSA63J-182X NRSA63J-272X NRSA63J-331X NRSA63J-152X NRSA63J-820X QRG01GJ-101 NRSA63J-221X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R3122 R3123 R3124 R3125 R3126 R3127 R3128 R3129-30	NRS/63J-122X QRE121J-563Y NRS/63J-470X QRE121J-563Y NRS/63J-470X NRS/63J-122X NRS/63J-390X QRE121J-2R7Y	MG R C R MG R C R MG R MG R MG R C R	$\begin{array}{ccccc} 1.2 \text{k}_{\Omega} & 1/16 \text{W} & \text{J} \\ 56 \text{K}\Omega & 1/2 \text{W} & \text{J} \\ 47 \Omega & 1/16 \text{W} & \text{J} \\ 56 \text{K}\Omega & 1/2 \text{W} & \text{J} \\ 47 \Omega & 1/16 \text{W} & \text{J} \\ 1.2 \text{K}\Omega & 1/16 \text{W} & \text{J} \\ 39 \Omega & 1/16 \text{W} & \text{J} \\ 2.7 \Omega & 1/2 \text{W} & \text{J} \end{array}$
R3131 R3132 R3133 A R3134 R3204-06 R3211 R3223-25 R3227	NRS/63J-390X NRS/63J-121X QRL029J-391 QRZ9021-561 NRS/63J-272X NRS/63J-154X NRS/63J-154X NRS/63J-103X	MG R MG R OM R F R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R3228 R3229-31 R3232-34 R3235-37 R3239 R3240 R3241 R3242	NRSA63J-272X QRL029J-104-F NRSA63J-332X QRC121K-152Z QRZ0107-474Z QRC121K-102Z QRZ0107-105Z NRSA63J-103X	MG R OM R MG R COMP.R C R MF R C R MG R	$\begin{array}{ccccc} 2.7 \text{K}\Omega & 1/16\text{W} & \text{J} \\ 100 \text{K}\Omega & 2\text{W} & \text{J} \\ 3.3 \text{K}\Omega & 1/16\text{W} & \text{J} \\ 1.5 \text{K}\Omega & 1/2\text{W} & \text{K} \\ 470 \text{K}\Omega & 1/2\text{W} & \text{K} \\ 1 \text{K}\Omega & 1/2\text{W} & \text{K} \\ 1.0 \text{M}\Omega & 1/2\text{W} & \text{K} \\ 10 \text{K}\Omega & 1/16\text{W} & \text{J} \end{array}$
R3244 R3245-47 R3301-02 R3303-04 R3305 R3306 R3310	NRSA63J-102X NRSA63J-562X QRE121J-474Y NRSA63J-223X NRSA63J-562X NRSA63J-392X NRSA63J-0ROX	MG R MG R C R MG R MG R MG R MG R	1kΩ 1/16W J 5.6kΩ 1/16W J 470kΩ 1/2W J 22kΩ 1/16W J 5.6kΩ 1/16W J 3.9kΩ 1/16W J 0.ΩΩ 1/16W J
	ACITOR		0.05 504
C3102 C3108 C3104 C3106 C3107 C3110 C3111 C3113	NDC31HJ-8ROX NDC31HJ-151X QCB31HK-103Z QETNLHM-335Z QETNLCM-107Z QETN2CM-106Z QCB32HK-472Z QETN2CM-106Z	C CAP. C CAP. C CAP. E CAP. E CAP. C CAP. E CAP.	8.0f 50V J 150f 50V J 0.01µF 50V K 3.3µF 50V M 100µF 16V M 10µF 160V M 4700pF 500V K 10µF 160V M
C3114 C3116-17 C3118 C3120-21 C3201-03 C3204-06 C3207-09 C3210-12	QCB32HK-472Z QETNLAM-107Z QETNLAM-387Z NDC31HJ-221X NDC31HJ-8ROX NCF31CZ-104X QETNLEM-476Z QFK62EK-104Z	C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. E CAP. MM CAP.	4700pF 500V K 100µF 10V M 330µF 10V M 220pF 50V J 8.0pF 50V J 0.1µF 16V Z 47µF 25V M 0.1µF 250V K

Δ	Symbol No.	Part No.	Part Name	Description
	CAPA	CITOR		
	C3213-15 C3216 C3218 C3219 C3221 C3302	NDC31HJ-181X QETNICM-107Z QETN2EM-336 QFZ0097-223 QETN2EM-106Z QETNIAM-107Z	C CAP. E CAP. E CAP. MM CAP. E CAP. E CAP.	180 pF 50V J 100 μF 16V M 33 μF 25 0V M 0.022 μF 125 0V K 10 μF 25 0V M 100 μF 10V M
	COIL	-		
	L3101 L3204	QQL244K-5R6Z QQL26AJ-102Z	COIL	5. <b>6</b> μΗ Κ 1mH J
	DIOD	Ε		
	D3101-02 D3103 D3104 D3204-06 D3207 D3208-10 D3211 D3212-13	MA111-X RH15-T3 RH15-T3 EU011-T2 RM2C-LFA1 15R124-400A-T2 MA3062/M/-X MA3130/H/-X	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE	
	D3301 D3303	MA111-X MA111-X	SI.DIODE SI.DIODE	
	TRAN	IS I STOF	₹	
	03101 03102 03103 03104 03105 03108 03109 03301	25C2412K/OR/-X 25A1037AK/QR/-X 25C1906-T 25C2412K/QR/-X 25C1627A/OY/-T 25A1837 25C4793 25A1037AK/QR/-X	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
	IC			
	IC3201-03	TDA6111Q	I.C (MONO-ANA)	
	OTHE	RS		
Δ	K3101 K3103-04 K3105 SG3201-03 SK3001 W3003 W3022	CE41492-001Z CE41492-001Z QQRG521-002Z QAF0056-501Z QNZ0880-001 QQRG79-001 QQRG79-001	CHOKE COIL CHOKE COIL BEADS CORE VARISTOR C.R.T.SOCKET FERRITE BEADS FERRITE BEADS	

#### (SMF-8401A-U2) **∆** Symbol No. Part No. Part Name Description RESISTOR 270Ω 1/2W J 220Ω 1/16W J 1kΩ 1/16W J 10kΩ 1/16W J C R MG R MG R R8001-02 QRE121J-271Y R8005 NRSA63J-221X NRSA63J-102X R8008 R8010 NRSA63J-103X R8012-13 NRSA63J-103X MG R 10kΩ 1/16W R8021-22 NRSA63J-102X MG R $1 k\Omega 1/16 W$ QRE121J-151Y NRSA63J-331X C R MG R 150Ω 1/2W 330Ω 1/16W R8035 R8039 CAPACITOR 0.01µF 50V K 0.1µF 16V K 68pF 50V J 4700pF 50V K 1001µF 16V M 0.1µF 16V K C CAP. C CAP. C CAP. C CAP. E CAP. C8001-02 NCB31HK-103X C8004 C8005 NCB31CK-104X NDC31HJ-680X C8010-11 NCB31HK-472X C8019 QETN1CM-107Z C8021 NCB31CK-104X E CAP. MF CAP 47μF 25V 0.47μFAC275V C8022 C8901 QETNLEM-476Z QFZ9072-474 M K Δ COIL QQR0716-001Z LEAD CORE L8001 QQL244K-5R6Z QQL244K-270Z QQR0716-001Z COIL PEAKING COIL LEAD CORE 5.6μH K L8002-03 L8010-11 L8012 DIODE SPR-39MVWF MA111-X D8010 D8011 L.E.D. SI.DIODE MA3068/M/-X MA3033-X D8014 D8018 ZENER DIODE ZENER DIODE

DIGI.TRANSISTOR DIGI.TRANSISTOR

IFR DETECT UNIT

FUSE CLIP

JACK

L.E.D.HOLDER

FUSE EMI FILTER LINE FILTER HEADPHONE JACK

PUSH SWITCH

PUSH SWITCH PUSH SWITCH PUSH SWITCH

3.15A

MENU

CH DOWN

MAIN POWER

TRANSISTOR

Q8002 Q8003-04

IC IC8001

F8901 LC8002 LF8901 J8001 J8003

\$8001

S8002 S8003 S8901

Δ Δ

Δ

OTHERS

DTC124EKA-X DTA124EKA-X

GP1U281Q

CEMG002-001Z

LC30596-001B-C QMF51D2-3R15J1 NQR0169-001X QQR1095-001 QMS3004-C01 QNZ0453-001

QSW0619-003Z

QSW0619-003Z QSW0619-003Z QSW0824-001

■ FRONT CONTROL P.W. BOARD ASS'Y

## ■MICOM P.W. BOARD ASS'Y (SMF0M401A-U2)

Δ	Symbol No.	Part No.	Part Name	Description
	RESI	STOR		
	R0001 R0002 R0003-05 R0006 R0007-08 R0009-11 R0012 R0013	NRSA63J-102X NRSA63J-104X NRSA63J-102X NRSA63J-152X NRSA63J-102X NRSA63J-103X NRSA63J-273X NRSA63J-221X	MG R MG R MG R MG R MG R MG R MG R	1kΩ 1/16W J 100kΩ 1/16W J 1kΩ 1/16W J 1.5kΩ 1/16W J 1kΩ 1/16W J 1kΩ 1/16W J 27kΩ 1/16W J 27kΩ 1/16W J 220Ω 1/16W J
	R0014 R0015 R0016-17 R0018 R0022 R0027 R0030 R0032	NRSÆ3J-102X NRSÆ3J-473X NRSÆ3J-103X NRSÆ3J-102X NRSÆ3J-472X NRSÆ3J-472X NRSÆ3J-472X NRSÆ3J-472X	MG R MG R MG R MG R MG R MG R MG R	1kΩ 1/16W J 47kΩ 1/16W J 10kΩ 1/16W J 1kΩ 1/16W J 4.7kΩ 1/16W J
	R0034-53 R0055 R0057-77 R0081 R0087 R0089-91 R0092 R0093	NRSÆ3J-OROX NRSÆ3J-OROX NRSÆ3J-OROX NCF31CZ-104X NRSÆ3J-221X NRSÆ3J-221X NRSÆ3J-472X NRSÆ3J-472X NRSÆ3J-221X	MG R MG R C CAP. MG R MG R MG R MG R	$\begin{array}{ccccc} 0.0\Omega & 1/16W & J \\ 0.0\Omega & 1/16W & J \\ 0.0\Omega & 1/16W & J \\ 0.1_{R}^{F} & 16V & Z \\ 220\Omega & 1/16W & J \\ 220\Omega & 1/16W & J \\ 4.7k\Omega & 1/16W & J \\ 220\Omega & 1/16W & J \\ \end{array}$
	R0094 R0095 R0096 R0097 R0098 R0099 R0100-02 R0103-06	NRSÆ3J-472X NRSÆ3J-473X NRSÆ3J-221X NRSÆ3J-102X NRSÆ3J-00X NRSÆ3J-102X NRSÆ3J-102X NRSÆ3J-103X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 4.7 k\Omega & 1/16 W & J \\ 47 k\Omega & 1/16 W & J \\ 220 \Omega & 1/16 W & J \\ 1 k\Omega & 1/16 W & J \\ 0.0 \Omega & 1/16 W & J \\ 1 k\Omega & 1/16 W & J \\ 1 k\Omega & 1/16 W & J \\ 10 k\Omega & 1/16 W & J \\ \end{array}$
	R0107 R0110 R0111 R0112 R0113-14 R0119 R0120 R0121	NRSAGJ-102X NRSAGJ-102X NRSAGJ-103X NRSAGJ-102X NRSAGJ-102X NRSAGJ-563X NRSAGJ-563X NRSAGJ-332X NRSAGJ-182X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 1 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 1 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 10 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 1 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 10 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 56 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 3.3 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 1.8 k_{\Omega} & 1/16 \text{W} & \text{J} \end{array}$
	R0122 R0123 R0124 R0125-28 R0129 R0130 R0131 R0133	NRSA63J-103X NRSA63J-682X NRSA63J-101X NRSA63J-472X NRSA63J-823X NRSA63J-104X NRSA63J-0R0X NRSA63J-0R0X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	R0136 R0137-39 R0144 R0147 R0151 R0152-54 R0155-56 R0157	NRSÆ3J-103X NRSÆ3J-222X NRSÆ3J-103X NRSÆ3J-472X NRSÆ3J-183X NRSÆ3J-183X NRSÆ3J-101X NRSÆ3J-101X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 10 k\Omega & 1/16 W & J \\ 2.2 k\Omega & 1/16 W & J \\ 10 k\Omega & 1/16 W & J \\ 4.7 k\Omega & 1/16 W & J \\ 18 k\Omega & 1/16 W & J \\ 220 \Omega & 1/16 W & J \\ 100 \Omega & 1/16 W & J \\ 0.0 \Omega & 1/16 W & J \\ \end{array}$
	R0158 R0165 R0166 R0167 R0168 R0169	NRSAG3J-221X NRSAG3J-103X NRSAG3J-223X NRSAG3J-103X NRSAG3J-471X NRSAG3J-472X	MG R MG R MG R MG R MG R MG R	220Ω 1/16W J 10kΩ 1/16W J 22kΩ 1/16W J 10kΩ 1/16W J 470Ω 1/16W J 4.7kΩ 1/16W J
		CITOR	F. CAD.	470 5 6 20
	C0001	QETNOJM-477Z	E CAP.	47QμF 6.3V M

Δ	Symbol No.	Part No.	Part Name	Description
_	CAPA	CITOR		
	C0002 C0003 C0004 C0005-06 C0007 C0012-13 C0014 C0017	NCF31CZ-104X NCB11CK-225X QETNOJM-108Z NCB11CK-225X NEH7LCM-476X NCF31CZ-104X NCB31HK-682X NDC31HJ-150X	C CAP. C CAP. E CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP.	$\begin{array}{cccc} 0.1_{\mu} F & 16V & Z \\ 2.2_{\mu} F & 16V & K \\ 1000_{\mu} F & 6.3V & M \\ 2.2_{\mu} F & 16V & K \\ 47_{\mu} F & 16V & K \\ 0.1_{\mu} F & 16V & Z \\ 6800 F & 50V & K \\ 15_{p} F & 50V & J \\ \end{array}$
	C0019 C0020 C0021 C0022 C0023 C0024 C0027-28 C0029	NEH7ICM-476X NCF3ICZ-104X NEH7ICM-476X NCF3IAZ-105X NCB3IEK-333X NCF3ICZ-104X NEH7ICM-476X NDC3IHJ-151X	E C.P. C C.P. E C.P. C C.P. C C.P. E C.P. C C.P.	$\begin{array}{cccc} 47\mu F & 16V & M \\ 0.1\mu F & 16V & Z \\ 47\mu F & 16V & M \\ 1\mu F & 10V & Z \\ 0.033 \mu F & 25V & K \\ 0.1\mu F & 16V & Z \\ 47\mu F & 16V & M \\ 150 \mu F & 50V & J \\ \end{array}$
	C0030-32 C0034-39 C0040 C0041 C0042-43 C0045-47 C0048 C0049-50	NCF31CZ-104X NCF31CZ-104X NDC31HJ-330X NDC31HJ-270X NCF31CZ-104X NCF31CZ-104X NEH71CM-476X NCF31CZ-104X	C C.P C C.P C C.P C C.P C C.P E C.P C C.P	$\begin{array}{cccc} 0.1 \mu F & 16 V & Z \\ 0.1 \mu F & 16 V & Z \\ 330 F & 50 V & J \\ 27 p F & 50 V & J \\ 0.1 \mu F & 16 V & Z \\ 0.1 \mu F & 16 V & Z \\ 47 \mu F & 16 V & M \\ 0.1 \mu F & 16 V & Z \\ \end{array}$
	C0051 C0052-57 C0059-61 C0062 C0063-65	NEH71CM-476X NCF31CZ-104X NEH71CM-106X NRSA63J-OROX NDC31HJ-820X	E CAP. C CAP. E CAP. MG R C CAP.	47μF 16V M 0.1μF 16V Z 10μF 16V M 0.ΩΩ 1/16W J 82pF 50V J
	COIL	-		_
	L0001 L0003 L0005-08 L0009 L0010-14 L0015-16 L0017-22	NQL@2K-4R7X NQL@2K-4R7X NQL@2K-4R7X NQL@4K-4R7X NQL@2K-4R7X NQL@4K-4R7X NQL@4K-4R7X NQL@2K-1R5X	INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR	
	DIOD	Ε		_
	D0001-02 D0003 D0004 D0005-08	MA111-X MA3068/M/-X MA3027-X MA3056/M/-X	SI.DIODE ZENER DIODE ZENER DIODE ZENER DIODE	
	TRAN	IS I STOF	3	
	Q0001 - 02 Q0007 - 08 Q0009 - 12 Q0021 - 22	2SC2712/YG/-X 2SA1162/YG/-X 2SC2712/YG/-X 2SC2712/YG/-X	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
	IC			
_	IC0001 IC0002 IC0003 IC0004 IC0005 IC0901	SDA6000 MR27V1652EB6RAZ K45161622D-TC80 ATZ4LC-28H28EU S-80828CNNB-W BA33C25FP-X	I.C(M) I.C(M) I.C(D-RAM) I.C I.C(M) I.C(M)	(SERVICE)
	OTHE	RS		
	CN0001 K0000 K0000 K0000 K00004 K00005 LC00001 LC00002	QGB1505K1-50 NRSA63J-390X NQR0389-003X NRSA63J-0R0X NQR0389-003X NRSA63J-0R0X NQR0313-007X NQR0431-001X	CONNECTOR MG R FERRITE BEADS MG R FERRITE BEADS MG R EMI FILTER EMI FILTER	$39\Omega$ 1/16W J $0.Q\Omega$ 1/16W J $0.Q\Omega$ 1/16W J
_	X0001	QAX0669-001Z	CRYSTAL	

#### ■ AV SW P.W. BOARD ASS'Y (SMF0S401A-U2)

∆ Symbol No. Par	t No.	Part Name	Description
RESIS	TOR		
R0110-11 NRS R0112-13 NRS R0114 NRS R0115 NRS R0116 NRS R0117 NRS	A63J-103X A63J-823X A63J-333X A63J-473X A63J-823X A63J-223X	MG R MG R MG R MG R MG R MG R MG R	75Ω 1/16W J 10kΩ 1/16W J 82kΩ 1/16W J 33kΩ 1/16W J 47kΩ 1/16W J 82kΩ 1/16W J 22kΩ 1/16W J 47kΩ 1/16W J
R0120 NRS R0121 NRS R0122 NRS R0123 NRS R0124 NRS R0125 NRS	A63J - 273X A63J - 222X A63J - 473X A63J - 823X A63J - 153X A63J - 223X	MG R MG R MG R MG R MG R MG R MG R	15kΩ 1/16W J 27kΩ 1/16W J 2.2kΩ 1/16W J 47kΩ 1/16W J 82kΩ 1/16W J 15kΩ 1/16W J 22kΩ 1/16W J 47kΩ 1/16W J
R0128-29 NRS R0130-31 NRS R0132 NRS R0133 NRS R0134 NRS R0135 NRS	A63J-823X A63J-391X A63J-222X A63J-333X A63J-222X A63J-333X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R0138-39 NRS R0140 NRS R0141 NRS R0142 NRS R0143-44 NRS R0145 NRS	A63J-333X A63J-222X A63J-333X A63J-222X A63J-333X A63J-103X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R0148-49 NRS R0150-51 NRS R0152-67 NRS R0168 NRS R0169 NRS R0170 NRS	A63J-391X A63J-104X A63J-101X A63J-750X A63J-222X A63J-333X	MG R MG R MG R MG R MG R MG R MG R	22kΩ 1/16W J 390Ω 1/16W J 100kΩ 1/16W J 100Ω 1/16W J 75Ω 1/16W J 2.2kΩ 1/16W J 75Ω 1/16W J 75Ω 1/16W J
R0173 NRS R0174 NRS R0175 NRS R0176 NRS R0177 NRS R0178 NRS	A63J-333X A63J-750X A63J-333X A63J-103X A63J-823X A63J-153X	MG R MG R MG R MG R MG R MG R MG R	2.2kΩ 1/16W J 33kΩ 1/16W J 75Ω 1/16W J 33kΩ 1/16W J 10kΩ 1/16W J 82kΩ 1/16W J 15kΩ 1/16W J 47kΩ 1/16W J
R0181-82 NRS R0183-84 NRS R0185-90 NRS R0191 NRS R0192 NRS R0194-95 NRS	A63J-562X A63J-102X A63J-101X A63J-222X A63J-101X A63J-221X	MG R MG R MG R MG R MG R MG R MG R	27kΩ 1/16W J 5.6kΩ 1/16W J 1kΩ 1/16W J 100Ω 1/16W J 2.2kΩ 1/16W J 100Ω 1/16W J 220Ω 1/16W J 100Ω 1/16W J 100Ω 1/16W J
R0198 NRS R0199 NRS R0200 NRS R0201 QRK	A63J-750X A63J-101X A63J-750X (126J-151X	C R MG R MG R G R C R	$\begin{array}{ccccc} 180\Omega & 1/2\text{W} & \text{J} \\ 75\Omega & 1/16\text{W} & \text{J} \\ 100\Omega & 1/16\text{W} & \text{J} \\ 75\Omega & 1/16\text{W} & \text{J} \\ 150\Omega & 1/2\text{W} & \text{J} \\ 75\Omega & 1/16\text{W} & \text{J} \\ \end{array}$
CAPAC			
C0101-10 NCB	331HK-472X	C CAP.	4700pF 50V K

Δ	Symbol No.	Part No.	Part Name	Des	cription
_	CAPA	CITOR			
	C0111-12 C0113-14 C0115-17 C0118-19 C0120 C0121 C0122 C0123	QETMLCM-477Z NCB31HK-102X QETMLHM-106Z QETMLHM-105Z NCB31HK-103X QETMLHM-105Z QETMLHM-106Z QETMLHM-105Z	E CAP. C CAP. E CAP. E CAP. C CAP. E CAP. E CAP. E CAP. E CAP.	470μF 100ΦF 10μF 1μF 0.01μF 1μF 10μF 1μF	16V M 50V K 50V M 50V M 50V K 50V M 50V M 50V M
	C0124 C0125 C0126-28 C0129 C0130 C0131 C0132 C0133	NCB31HK-103X NCB31HK-102X QETM1HM-106Z QETM1HM-105Z NCB31HK-103X QETM1HM-105Z NCB31HK-103X QETM1HM-106Z	C CAP. C CAP. E CAP. E CAP. C CAP. C CAP. C CAP. E CAP. C CAP.	0.01µF 1000pF 10µF 1µF 0.01µF 1µF 0.01µF 10µF	50V K 50V K 50V M 50V M 50V K 50V M 50V K 50V M
	C0134 C0135 C0136 C0137 C0138-39 C0140 C0141-47 C0148	QETNIHM-105Z QETNIHM-106Z QETNIHM-105Z NCB31HK-103X QENCIEM-105Z QENCIEM-106Z NCB31HK-103X QETNIHM-106Z	E CAP. E CAP. E CAP. C CAP. B CAP. C CAP. BP E CAP. C CAP. E CAP.	$\begin{array}{c} 1 \mu \text{F} \\ 10 \mu \text{F} \\ 1 \mu \text{F} \\ 0.01 \mu \text{F} \\ 1 \mu \text{F} \\ 10 \mu \text{F} \\ 0.01 \mu \text{F} \\ 10 \mu \text{F} \end{array}$	50V M 50V M 50V K 50V M 25V M 25V M 50V K 50V M
	C0149 C0150-51 C0152 C0153 C0154 C0155	QENCIEM-106Z QETNICM-107Z QETNICM-477Z NCB31HK-103X QETNICM-107Z NDC31HJ-150X	BP E CAP. E CAP. E CAP. C CAP. E CAP. C CAP.	10μF 100μF 470μF 0.01μF 100μF 15pF	25V M 16V M 16V M 50V K 16V M 50V J
	COIL	-			
_	L0101	QQR0716-001Z	LEAD CORE		
	DIOD	ÞΕ			
	D0101-04 D0109-13 D0114 D0115-17	MA3056/M/-X MA3120/M/-X MA3039/H/-X MA3056/M/-X	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
	TRAN	IS I STOF	₹		
	00101-02 00103-05 00106-09 00110 00111 00112 00113-15 00116	2SC2412K/QR/-X DTC323TK-X 2SC2412K/QR/-X 2SA1037AK/QR/-X DTC323TK-X 2SA1037AK/QR/-X 2SC2412K/QR/-X 2SC2412K/QR/-X 2SA933AS/QR/-T	SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q0117	2SC1740S/QR/-T	SI.TRANSISTOR		
_	IC				
	IC0101	CXA2069Q	I.C (MONO-ANA)		
	OTHE	RS			
_	CN0001 J0001 J0002 K0101-04	QGB1505K1-50 QNZ0465-001 QNZ0463-001 CE42681-001Y	CONNECTOR PIN CONNECTOR PIN CONNECTOR BEADS CORE		

## ■100Hz P.W. BOARD ASS'Y (SMF0Z405A-U2)

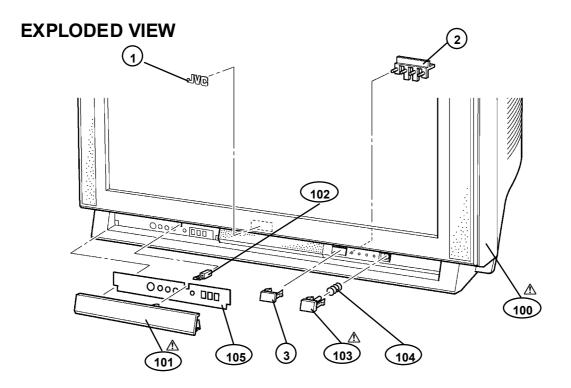
<u>A</u> S	Symbol No.	Part No.	Part Name	Description
Ī	RESI	STOR		
R R R R	R0008-09 R0010-12 R0101 R0102-03 R0104 R0105-06 R0107-13 R0122-23	NRSA63J-0R0X NRSA63J-101X NRSA63J-332X NRSA63J-222X NRSA63J-332X NRSA63J-222X NRSA63J-750X NRSA63J-760X	MG R MG R MG R MG R MG R MG R MG R	0.0Ω 1/16W J 100Ω 1/16W J 3.3kΩ 1/16W J 2.2kΩ 1/16W J 3.3kΩ 1/16W J 2.2kΩ 1/16W J 75Ω 1/16W J 0.0Ω 1/16W J
R R R R	R0124-25 R0132-39 R0141 R0201 R0202-03 R0204-05 R0214 R0217	NRSA63J-101X NRSA63J-100X NRSA63J-121X NRSA63J-121X NRSA63J-101X NRSA63J-0R0X NRSA63J-0R0X NRSA63J-103X	MG R MG R MG R MG R MG R MG R MG R	1000 1/16W J 100 1/16W J 100 1/16W J 1000 1/16W J 1000 1/16W J 0.00 1/16W J 0.00 1/16W J 10k0 1/16W J
R R R R	R0218 R0219 R0220 R0226-42 R0243-44 R0251 R0252 R0254	NRSA63J-333X NRSA63J-103X NRSA63J-822X NRSA63J-00X NRSA63J-103X NRSA63J-222X NRSA63J-750X NRSA63J-391X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R R R R	R0255 - 56 R0258 R0258 R0259 R0261 R0264 R0271 R0274	NRSA63J-221X NRSA63J-271X NRSA63J-272X NRSA63J-472X NRSA63J-222X NRSA63J-391X NRSA63J-391X NRSA63J-391X	MG R MG R MG R MG R MG R MG R MG R	220Ω 1/16W J 270Ω 1/16W J 2.7kΩ 1/16W J 4.7kΩ 1/16W J 2.2kΩ 1/16W J 390Ω 1/16W J 2.2kΩ 1/16W J 390Ω 1/16W J
R R R	R0401 R0402 R0404 R0407 R0409	NRSA63J-473X NRSA63J-472X NRSA63J-OROX NRSA63J-OROX NRSA63J-OROX	MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 47 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 4.7 k_{\Omega} & 1/16 \text{W} & \text{J} \\ 0.0 \Omega & 1/16 \text{W} & \text{J} \\ 0.0 \Omega & 1/16 \text{W} & \text{J} \\ 0.0 \Omega & 1/16 \text{W} & \text{J} \\ \end{array}$
•	CAPA	CITOR		
	20001 20002 20003 20004 20005 20006 20007 - 09	NCB31CK-104X NEH71CM-476X NCB31CK-104X NEH71CM-476X NCB31CK-104X NEH71CM-476X NDC31HJ-4R0X NEH71CM-106X	C CAP. E CAP.	0.1µF 16V K 47µF 16V M 0.1µF 16V M 0.1µF 16V K 47µF 16V M 47µF 16V M 4.0µF 50V J 10µF 16V M
	C0102 C0103 C0104 C0105 C0106 C0107 C0108 C0109	NCB31EK-473X NEH71CM-476X NCB31HK-152X NDC31HJ-102X NCB31CK-104X NCF31CZ-224X NCB31HK-152X NDC31HJ-391X	C CAP. E CAP. C CAP.	0.047 <sub>µ</sub> F 25V K 47µF 16V M 1500pF 50V K 1000pF 50V J 0.1µF 16V K 0.22µF 16V Z 1500pF 50V K 390pF 50V J
0	C0110 C0111 C0112 C0113-18 C0119-24 C0125-26 C0128	NEH71CM-106X NCB31EK-473X NDC31HJ-331X NDC31HJ-331X NDC31HJ-331X NDC31HJ-380X NCB31CK-104X NCF31CZ-224X	E CAP. C CAP.	10µF 16V M 0.047µF 25V K 3300F 50V J 0.22µF 16V Z 3300F 50V J 3.0pF 50V J 0.1µF 16V K 0.22µF 16V Z
	0130	NDC31HJ-391X	C CAP.	390pF 50V J

Δ	Symbol No.	Part No.	Part Name	Description
_	CAPA	CITOR		
	C0131 C0132 C0133 C0134 C0136-37 C0138 C0139 C0140	NCB31HK-152X NCB31EK-473X NCB31HK-152X NCB31CK-683X NCB31CK-683X NCB31HK-152X NCB31HK-157X NCB31EK-473X NEH71CM-476X	C CAP. C CAP. C CAP. CHIP CAP. CHIP CAP. C CAP. C CAP. C CAP. E CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	C0141 C0201 C0202-05 C0206 C0207-11 C0212-13 C0214-17 C0218	NDC31HJ-100X NEH7ICM-476X NCB31CK-104X NEH7ICM-476X NCB31CK-104X NDC31HJ-180X NCB31CK-104X NDC31HJ-561X	C C.P E C.P C C.P E C.P C C.P C C.P C C.P	10pF 50V J 47µF 16V M 0.1µF 16V K 47µF 16V M 0.1µF 16V K 18pF 50V J 0.1µF 16V K 560pF 50V J
	C0237 - 38 C0251 C0252 C0254 C0255 C0256 C0261 C0262	NEH7ICM-106X NDC31HJ-4R0X NCB31CK-104X NDC31HJ-120X NDC31HJ-270X NEH7ICM-106X NDC31HJ-4R0X NCB31CK-104X	E C.P C C.P C C.P C C.P C C.P C C.P C C.P	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	C0264 C0265 C0271 C0272 C0274 C0275 C0402-03 C0404	NDC31HJ-120X NDC31HJ-270X NDC31HJ-4R0X NDC31HJ-120X NDC31HJ-120X NDC31HJ-270X NCB31CK-104X NDC31HJ-330X	C C.P C C.P C C.P C C.P C C.P C C.P C C.P	12pF 50V J 27pF 50V J 4.0pF 50V J 0.1µF 16V K 12pF 50V J 27pF 50V J 0.1µF 16V K 33pF 50V J
_	COIL	-		
	L0001-03 L0101 L0102-08 L0109 L0201-03 L0209-10 L0251 L0261	NQL@2K-1R5X NQL@4K-150X NQL@2K-3R3X NQL@4K-6R8X NQL@4K-100X NQL@2K-1R5X NQL@2K-5R6X NQL@2K-5R6X	INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR	
	L0271	NQL092K-5R6X	INDUCTOR	
	DIOD	_	CT DIODE	
_	TRAN	MA111-X ISISTOF	SI.DIODE	
		2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q0101-02 Q0201 Q0251-52 Q0253 Q0261 Q0271	25A1037AK/QR/-X 25A1037AK/QR/-X 25A1037AK/QR/-X 25C2412K/QR/-X 25A1037AK/QR/-X 25A1037AK/QR/-X	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
	IC			
	IC0101 IC0201 IC0401 IC0402	VPC3230D-QA-B3 SAA4979H/V105 S-80828CNNB-W TC7WH34FU-X	I.C(M) I.C(M) I.C(M) I.C(DIGI-MOS)	
	OTHE	RS		
	CN0003 LC0010-12 LC0013 LC0014-15 X0101 X0201	QGB1505K1-50 NQR0313-009X NQR0313-004X NQR0313-007X QAX0655-001Z QAX0273-001Z	CONNECTOR EMI FILTER EMI FILTER EMI FILTER CRYSTAL CRYSTAL	

# **EXPLODED VIEW PARTS LIST**

AV28H20	AV28H20EUS				
<u>∧</u> Ref.No.	Part No.	Part Name	Description		
1 2 3 <u>A</u> 100 <u>A</u> 101 102 <u>A</u> 103	LC 403 54-003A-C LC 305 80-001C-C LC 305 79-001B-C LC 106 62-023A-U LC 202 65-017A-U CM 482 29-00A-C LC 305 78-007B-U AE M31 49-001-E	JVC MARK LED LENS REMOCON WINDOW FRONT CABINET ASSY DO OR DO OR LATCH PO WER KNOB SPRING	Inc. No. 101~105 (SERVICE) (SERVICE)		
105	LC31109-006A-U	CONTROL SHEET			

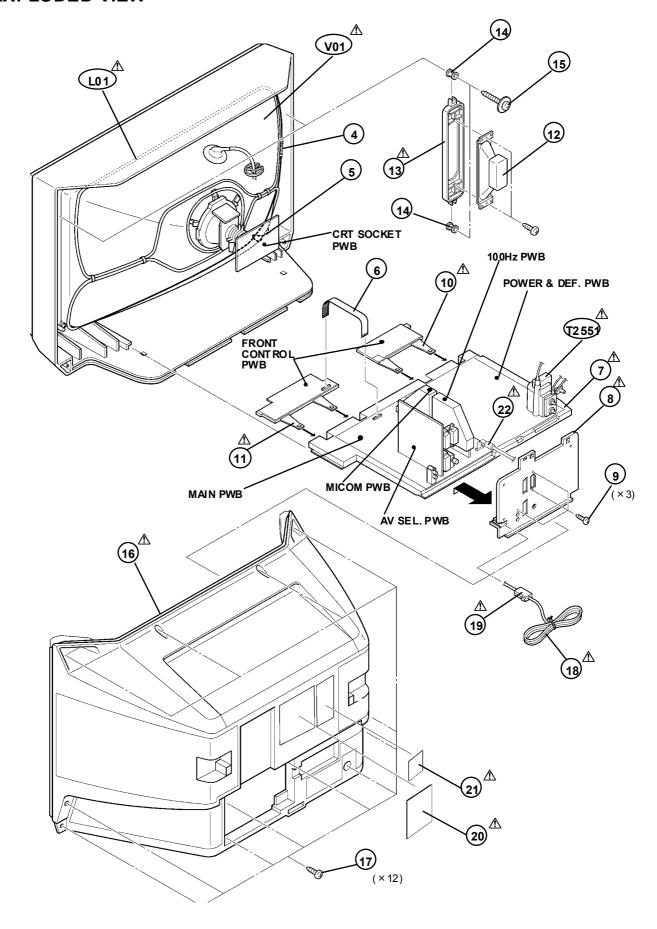
AV28H20EUB			
⚠ Ref.No.	Part No.	Part Name	Description
1	LC 403 54-001C-C	JVC MARK	
2 3	LC 305 80-001C-C LC 305 79-001B-C	LED LENS REMOCON WINDOW	
<b>∆</b> 100	LC 106 62-024A-U	FRONT CABINET ASSY	Inc. No. 101~105
<b>∆</b> 101	LC 202 65-024A-U	DO OR	(SERVICE)
102	CM 482 29-00A-C	DOOR LATCH	
<b>∆</b> 103	LC 305 78-004A-U	POWER KNOB	(SERVICE)
104	AEM3149-001-E	SPRING	
105	LC31109-004B-U	CONTROL SHEET	



AV28H20E	AV28H20EUS				
⚠ Ref.No.	Part No.	Part Name	Description		
⚠ V01 ⚠ L01 ⚠ T2551 4	W6 6QD E99 3X92 5 QQ W01 00-001 QQ H01 26-001 WJ Y00 01-011A	ITC TUBE (C) DEGAUSSING COIL H. V. TRANSF. BRAIDED ASSY	Inc. DY, PC MAGNET, WEDGE		
5 6 <u>↑</u> 7 <u>↑</u> 8	WJY0013-002A CHFD125-11BD LC10716-002F-U LC10717-005D-U	BRAIDED SUB ASSY FFC WIRE CHASSIS BASE TERMINAL BOARD	CN-1		
9 <u>↑</u> 10 ↑ 11	QYSBSB3012M LC10380-003B-U LC10380-004B-U	TAPPING SCREW CONTROL BASE L CONTROL BASE R	(x 3)		
12 ⚠ 13 14 15	QA S00 88-001 LC 107 20-001D-U LC 402 26-003A-H LC 405 06-001A	SPEAKER ADAPTER SPACER TAPPING SCREW	SP01-02 (x 2) (x 2) (x 4) (x 4)		
⚠ 16 17 ⚠ 18	LC 106 64-003B-U  QY SBS AG4 016N  QM PK1 60-185-JC	REAR COVER TAPPING SCREW POWER CORD	(x 12) CN-PW		
△ 19 △ 20 △ 21 △ 22	CM 466 18-A01-E LC 203 79-026A-U LC 307 89-002B-U QQ R04 91-001	POWER CORD POWER CORD CLAMP RATING LABEL WARNING LABEL FILTER	ON TH		

AV28H20EUB				
<u>∧</u> Ref.No.	Part No.	Part Name	Description	
⚠ V01 ⚠ L01 ⚠ T2551 ———————————————————————————————————	W6 6QD E99 3X92 5 QQ W01 00-001 QQ H01 26-001 WJ Y00 01-011A WJ Y00 13-002A	ITC TUBE (C) DEGAUSSING COIL H. V. TRANSF. BRAIDED ASSY BRAIDED SUB ASSY	Inc. DY, PC MAGNET, WEDGE	
6	CHFD1 25-11BD	FFC WIRE	CN-1	
<u>^</u> 7	LC 107 16-002F-U	CHASSIS BASE		
<u>^</u> 8	LC 107 17-003E-U	TERMINAL BOARD		
9	QY SBS B30 12M	TAPPING SCREW	(x 3)	
<u>↑</u> 10	LC 103 80-003B-U	CONTROL BASE L		
↑ 11	LC 103 80-004B-U	CONTROL BASE R		
12	QA S00 88-001	SPEAKER	SP01-02 (x 2)	
▲ 13	LC 107 20-001D-U	ADAPTER	(x 2)	
14	LC 402 26-003A-H	SPACER	(x 4)	
15	LC 405 06 - 001A	TAPPING SCREW	(x 4)	
<u>↑</u> 16	LC 1 066 4 - 0 01E - U	REAR COVER		
17 18 19 19 20 21 22	QY SBS AG4 016N QM PK1 60-185-JC CM 466 18-A01-E LC 203 79-025A-U LC 307 89-002B-U QQ R04 91-001	TAPPING SCREW POWER CORD POWER CORD CLAMP RATING LABEL WARNING LABEL FILTER	(x12) CN-PW	

### **EXPLODED VIEW**



### AV28H20EUS / AV28H20EUB

# PRINTED WIRING BOARD PARTS LIST

#### ■ MAIN P.W. BOARD ASS'Y (SMF-1402A-U2)

■ MAIN  A Symbol No.		Part Name	SM F-1402A-U2) Description
	ISTOR		<u>'</u>
R1004-06 R1008-09 R1102 R1103 R1104 R1105 R1106 R1108	NRSA63J-101X NRSA63J-0R0X NRSA63J-0R0X NRSA63J-222X NRSA63J-561X NRSA63J-331X NRSA63J-331X NRSA63J-102X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R1109-11 R1151 R1153 R1156 R1158-59 R1161 R1301-02 R1308	NRS:#63J-101X NRS:#63J-101X NRS:#63J-101X NRS:#63J-0R0X NRS:#63J-0R0X NRS:#63J-0R0X NRS:#63J-101X NRS:#63J-273X	MG R	$\begin{array}{ccccc} 100_{\Omega} & 1/16\text{W} & \text{J} \\ 100_{\Omega} & 1/16\text{W} & \text{J} \\ 100\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 0.0\Omega & 1/16\text{W} & \text{J} \\ 100_{\Omega} & 1/16\text{W} & \text{J} \\ 27\text{k}\Omega & 1/16\text{W} & \text{J} \\ \end{array}$
R1304 R1311 R1312 R1313 R1314 R1315-17 R1318 R1319	NRSA63J-102X NRSA63J-331X NRSA63J-273X NRSA63J-213X NRSA63J-221X NRSA63J-101X NRSA63J-562X NRSA63J-183X	MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R1321-22 R1325 R1326 R1401-02 R1408-04 R1405-06 R1451 R1454	NRSÆ3J-0ROX NRSÆ3J-101X NRSÆ3J-6&2X NRSÆ3J-102X NRSÆ3J-331X NRSÆ3J-102X NRSÆ3J-821X NRSÆ3J-472X	MG R MG R MG R MG R MG R MG R MG R	$\begin{array}{ccccc} 0.0\Omega & 1/16W & J \\ 100\Omega & 1/16W & J \\ 6.8k\Omega & 1/16W & J \\ 1k\Omega & 1/16W & J \\ 330\Omega & 1/16W & J \\ 1k\Omega & 1/16W & J \\ 200\Omega & 1/16W & J \\ 4.7k\Omega & 1/16W & J \\ \end{array}$
R1455-56 R1457 R1458 R1459 R1461 R1462 R1463 R1463 -66	NRSA63J-123X NRSA63J-392X NRSA63J-123X NRSA63J-172X NRSA63J-123X NRSA63J-153X NRSA63J-104X NRSA63J-224X	MG R MG R MG R MG R MG R MG R MG R	12kΩ 1/16W J 3.9kΩ 1/16W J 12kΩ 1/16W J 4.7kΩ 1/16W J 12kΩ 1/16W J 12kΩ 1/16W J 15kΩ 1/16W J 20kΩ 1/16W J
R1467 R1468 R1469 R1470 R1471 R1472 R1473 R1474	NRSÆ3J-563X NRSÆ3J-224X NRSÆ3J-683X NRSÆ3J-273X NRSÆ3J-682X NRSÆ3J-123X NRSÆ3J-123X NRSÆ3J-563X	MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R1475 R1476-78 R1479 R1480 R1481 R1482 R1483 R1484	NRSÆ3J-153X NRSÆ3J-123X NRSÆ3J-154X NRSÆ3J-823X NRSÆ3J-472X NRSÆ3J-272X NRSÆ3J-472X NRSÆ3J-473X	MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R1485 R1486 R1487 R1489 R1491 R1492 R1501 R1504	NRSA63J-123X NRSA63J-472X NRSA63J-183X NRSA63J-333X NRSA63J-332X NRSA63J-562X NRSA63J-0ROX NRSA63J-102X	MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

∆ Symbol No	. Part No.	Part Name	Description
RES	ISTOR		
R1511 R1512 R1521 R1521 R1551 R1552 R1553 R1553	NRSA63J-152X NRSA63J-332X NRSA63J-223X NRSA63J-603X NRSA63J-100X NRSA63J-124X NRSA63J-683X NRSA63J-562X	MG R MG R MG R MG R MG R MG R MG R	1.5kΩ 1/16W J 3.3kΩ 1/16W J 22kΩ 1/16W J 5.6kΩ 1/16W J 10Ω 1/16W J 120kΩ 1/16W J 68kΩ 1/16W J 5.6kΩ 1/16W J 5.6kΩ 1/16W J
R1555 R1556 R1557 R1558 R1559 R1560 R1561 R1562	NRS/63J-333X NRS/63J-472X NRS/63J-562X NRS/63J-154X NRS/63J-154X NRS/63J-100X QRN143J-0R0X NRS/63J-683X	MG R MG R MG R MG R MG R C R MG R	33kΩ 1/16W J 4.7kΩ 1/16W J 5.6kΩ 1/16W J 100kΩ 1/16W J 150kΩ 1/16W J 10Ω 1/16W J 0.0Ω 1/4W J 68kΩ 1/16W J
R1563 R1564 R1565 R1591 R1592 R1595 R1596 R1601	NRSA63J-103X NRSA63J-223X NRSA63J-562X NRSA63J-562X NRSA63J-332X NRSA63J-222X NRSA63J-104X NRSA63J-273X	MG R MG R MG R MG R MG R MG R MG R	10kΩ 1/16W J 22kΩ 1/16W J 5.6kΩ 1/16W J 5.6kΩ 1/16W J 3.3kΩ 1/16W J 2.2kΩ 1/16W J 100kΩ 1/16W J 27kΩ 1/16W J 27kΩ 1/16W J
R1602 R1603 R1604 R1605 R1606 R1609 R1610 R1618	NRS.463J-103X NRS.463J-273X NRS.463J-103X NRS.463J-473X NRS.463J-473X NRS.463J-104X NRS.463J-682X NRS.463J-333X	MG R MG R MG R MG R MG R MG R MG R	10kΩ 1/16W J 27kΩ 1/16W J 10kΩ 1/16W J 47kΩ 1/16W J 27kΩ 1/16W J 100kΩ 1/16W J 6.8kΩ 1/16W J 33kΩ 1/16W J
R1619 R1620 R1637 R1639 R1642-43 R1644 R1645-46	NRS/63J-104X NRS/63J-562X QRK126J-2R2X NRS/63J-561X NRS/63J-61X NRS/63J-104X NRS/63J-0R0X QRK126J-2R2X	MG R MG R C R MG R MG R MG R MG R	$\begin{array}{cccc} 100 \& \Omega & 1/16 \text{W} & \text{J} \\ 5.6 \& \Omega & 1/16 \text{W} & \text{J} \\ 2.2 & 1/2 \text{W} & \text{J} \\ 56 \Omega & 1/16 \text{W} & \text{J} \\ 68 \Omega & 1/16 \text{W} & \text{J} \\ 100 \& \Omega & 1/16 \text{W} & \text{J} \\ 0.2 & 1/16 \text{W} & \text{J} \\ 2.2 \& 1/2 \text{W} & \text{J} \end{array}$
R1650-51 R1654-55 R1664-65 R1666 R1667 R1668 R1669 R1670-71	NRS/63J-103X NRS/63J-0R0X NRS/63J-103X NRS/63J-103X NRS/63J-183X NRS/63J-473X NRS/63J-183X NRS/63J-183X	MG R MG R MG R MG R MG R MG R MG R	10kΩ 1/16W J 0. ΩΩ 1/16W J 10kΩ 1/16W J 47kΩ 1/16W J 18kΩ 1/16W J 47kΩ 1/16W J 47kΩ 1/16W J 18kΩ 1/16W J 100kΩ 1/16W J
R1672 R1673 R1675 R1677-78 R1679 R1680 R1684 R1687	NRS/63J - 223X NRS/63J - 273X NRS/63J - 103X NRS/63J - 103X NRS/63J - 223X NRS/63J - 273X NRS/63J - 0R0X NRS/63J - 0R0X	MG R MG R MG R MG R MG R MG R MG R	22kΩ 1/16W J 27kΩ 1/16W J 10kΩ 1/16W J 10kΩ 1/16W J 22kΩ 1/16W J 27kΩ 1/16W J 0.ΩΩ 1/16W J 0.ΩΩ 1/16W J
R1701-02 R1703-04 R1705-08 R1711-12 R1714-15 R1720-22 R1772-76 R1951	NRSA63J-103X NRSA63J-102X NRSA63J-101X NRSA63J-101X NRSA63J-102X NRSA63J-102X NRSA63J-221X QRK126J-220X	MG R MG R MG R MG R MG R MG R C R	10kΩ 1/16W J 1kΩ 1/16W J 10kΩ 1/16W J 10kΩ 1/16W J 10kΩ 1/16W J 1kΩ 1/16W J 1kΩ 1/16W J 22Ω 1/16W J 22Ω 1/16W J

⚠	Symbol No.	Part No.	Part Name	Description
	CAPA	CITOR		
	C1001 C1002 C1004 C1005 C1006 C1007 C1009 C1010	NCB31HK-222X QETM1HM-106Z NCB31CK-104X QETM1CM-108Z NCB31HK-103X QETM1HM-106Z NCB31CK-104X QETM1HM-106Z	C C P. E C P. C C P. E C P. E C P. C C P. C C P. E C P. E C P. E C P.	2200F 50V K 10µF 50V M 0.1µF 16V K 1000µF 16V M 0.01µF 50V K 10µF 50V M 0.1µF 16V K 10µF 50V M
	C1101 C1102 C1103 C1104 C1105 C1106-07 C1108 C1111	NCB31CK-104X QETNLHM-106Z NCB31CK-104X QETNLCM-107Z QETNLHM-106Z NCB31CK-104X NDC31HJ-680X NCB31HK-103X	C CAP. E CAP. C CAP. E CAP. E CAP. C CAP. C CAP. C CAP. C CAP.	0.1µF 16V K 10µF 50V M 0.1µF 16V K 100µF 16V M 10µF 50V M 0.1µF 16V K 68pF 50V J 0.01µF 50V K
	C1116 C1117-18 C1119-20 C1121 C1122-23 C1124-25 C1126 C1127	NCB31HK-472X NCB31HK-103X NDC31HJ-2R0X NCB31HK-103X NDC31HJ-102X QETM1HM-106Z NCB31CK-104X QETM1HM-106Z	C C.P C C.P C C.P C C.P E C.P C C.P E C.P	4700pF 50V K 0.01µF 50V K 2.0pF 50V J 0.01µF 50V K 1000pF 50V J 10µF 50V M 0.1µF 16V K 10µF 50V M
	C1128 C1129 C1130 C1151-54 C1155-56 C1301 C1302-03 C1305-09	NCB31CK-104X NCF31AZ-105X QETNIHM-106Z NCF31AZ-105X NDC31HJ-102X QETNICM-107Z NCB31CK-104X NCB31CK-104X	C C.P. C C.P. E C.P. C C.P. C C.P. C C.P. C C.P.	0.1µF 16V K 1µF 10V Z 10µF 50V M 1µF 10V Z 1000pF 50V J 100µF 16V M 0.1µF 16V K
	C1310 C1311 C1312 C1313-15 C1316-18 C1320 C1321-23 C1324	QETNLAM-228Z NCB31CK-683X NDC31HJ-221X NCB31HK-223X NCB31HK-103X QETNDJM-228Z NCB31HK-223X NDC31HJ-820X	E CAP. CHIP CAP. C CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP.	2200µF 10V M 0.068µF 16V K 220pF 50V J 0.022µF 50V K 0.01µF 50V K 2200µF 6.3V M 0.022µF 50V K 82pF 50V J
	C1351 C1401 C1402 C1403-04 C1453 C1454 C1455-56 C1457	QENCLEM-106Z NCB31CK-104X QETNLCM-107Z NCB31CK-104X NCB31HK-103X NCB31EK-333X NCB31CK-104X NCB31EK-333X	BP E CAP. C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. C CAP. C CAP.	10µF 25V M 0.1µF 16V K 100µF 16V M 0.1µF 16V K 0.01µF 50V K 0.031µF 25V K 0.1µF 16V K 0.033µF 25V K
	C1471 C1472 C1473 C1474 C1475 C1491 C1501-02 C1551-52	NCB31CK-104X NCB31HK-103X NCB31CK-104X NCB31EK-333X NCB31EK-373X NCB31EK-473X NDC31HJ-150X NCF31CZ-224X	C C.P C C.P C C.P C C.P C C.P C C.P C C.P	0.1µF 16V K 0.01µF 50V K 0.1µF 16V K 0.03 µF 25V K 0.1µF 16V K 0.047 µF 25V K 15pF 50V J 0.22µF 16V Z
_	C1553 C1554-55 C1560 C1561 C1562 C1564 C1591	QETNLEM-476Z NCF31CZ-224X QETNLCM-107Z NDC31HJ-561X QETNLHM-105Z NCB31CK-104X NDC31HJ-471X	E CAP. C CAP. E CAP. C CAP. E CAP. C CAP. C CAP.	47µF 25V M 0.22µF 16V Z 100µF 16V M 560µF 50V J 1µF 50V M 0.1µF 16V K 470µF 50V J

Δ	Symbol No.	Part No.	Part Name	Description
_	CAPA	CITOR		_
	C1596 C1600 C1606-07 C1616 C1618 C1628 C1629 C1630	NCB31CK-104X QETN1HM-226Z QETN1CM-227Z QETN1HM-105Z QETN1HM-105Z QETN1HM-107Z QETN1HM-106Z NCF21HZ-224X	C CAP. E CAP. E CAP. E CAP. E CAP. E CAP. E CAP. C CAP. C CAP.	0.1μF 16V K 22μF 50V M 220μF 16V M 1μF 50V M 1μF 50V M 100μF 50V M 10μF 50V M 0.22μF 50V Z
	C1632 C1634 C1641-42 C1646-47 C1648-49 C1673-74 C1675 C1676-77	NCF21HZ-224X QETM1HM-228 NCF21HZ-224X NCB31HK-103X QETM1VM-108 NCF31AZ-105X QETM1EM-476Z NDC31HJ-151X	C CAP. E CAP. C CAP. C CAP. E CAP. E CAP. E CAP. C CAP. C CAP.	0.22μF 50V Z 2200μF 50V M 0.22μF 50V Z 0.01μF 50V K 1000μF 35V M 1μF 10V Z 47μF 25V M 150βF 50V J
	C1678-79 C1680 C1681 C1682 C1683 C1684 C1685 C1686	NDC31HJ-150X NCF31AZ-105X NCB31HK-332X NCB31EK-333X QETMLEM-476Z NCB31HK-332X NCB31EK-332X NCF31AZ-105X	C CAP. C CAP. C CAP. C CAP. E CAP. C CAP. C CAP. C CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	C1687 C1688 C1689 C1695 C1698 C1701 C1702	QETNIHM-106Z QETNIEM-476Z NCB31CK-104X NRSA63J-0ROX NRSA63J-0ROX NCB31HK-103X QETNIHM-106Z NCB31CK-563X	E CAP. E CAP. C CAP. MG R MG R C CAP. E CAP. CHIP CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	C1951 C1952-53 C1954 C1955 C1956	QETNLCM-477Z NCB31CK-104X QETNLAM-477Z QETNLAM-227Z QETNLAM-107Z	E CAP. C CAP. E CAP. E CAP. E CAP.	470μF 16V M 0.1μF 16V K 470μF 10V M 220μF 10V M 100μF 10V M
	COIL	_		
	L1001 L1002-03 L1101 L1102 L1301-02 L1951	QQL244K-270Z QQL244K-100Z QRN143J-0R0X QQL244K-4R7Z NQL02K-1R5X QQL26AM-5R6Z	PEAKING COIL COIL C R COIL INDUCTOR CHOKE COIL	10μΗ Κ 0.0Ω 1/4W J 4.7μΗ Κ
	DIOD	ÞΕ		
	D1317-18 D1319 D1320-21 D1471-74 D1475 D1521 D1591 D1592	MA111-X MA3036-X MA3056/M/-X MA111-X MA3240/M/-X MA111-X MA111-X MA3051/M/-X	SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE	
	D1593 D1602 D1610-11 D1614-15 D1617 D1619-20 D1771-74 D1951	MA111-X MA111-X MA111-X MA111-X MA111-X MA330/L/-X MA3056/M/-X 15R35-400A-T2	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE	
	D1981-82	MA111-X	SI.DIODE	

Δ	Symbol No.	Part No.	Part Name	Des	cripti	on
	TRAN	ISISTOF	₹			
	01101-02 01301 01471-72 01561 01562 01591 01592 01601-02	25C2412K/QR/-X 25A1037AK/QR/-X 25C2412K/QR/-X 25C2412K/QR/-X 25A1037AK/QR/-X 25A1037AK/QR/-X 25C2412K/QR/-X 25A1037AK/QR/-X	SI.TRANSISTOR			
	Q1604-05 Q1606 Q1607 Q1615 Q1616-17	DTC124EKA-X 2SC2412K/QR/-X DTA124EKA-X 2SA1037AK/QR/-X DTC323TK-X	DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR			
	IC101 IC1301 IC1402 IC1471 IC1551 IC1601 IC1662 IC1663	MSP 3415DQGB3GHX SDA3380 BA10324AF-XE BA10358F-XE LA6515 TA8246AH BA4558F-X NJM2150AM-X	I.C (MONO-ANA) I.C (M) I.C (M) I.C (M) I.C (M) I.C (MONO-ANA) I.C (MYBRID) I.C (MYBRID) I.C (MONO-ANA) I.C (MONO-ANA) I.C (MONO-ANA)			
	IC1701 IC1951 IC1952	JLC1562BF-X BA09T BA08T	I.C (DIGI-MOS) I.C (MONO-ANA) I.C (MONO-ANA)			
	OTHE	RS				
	CN1013 J1001 K1001 K1101-02 K1301 K1601-02 LC1102 LC1301-03	QGA2501C1-10 QNN0296-001 NQR0389-003X NQR0389-003X NQR0413-003X CE42681-001Y NQR0431-001X NQR0431-001X	W TO B CONNE PIN JACK FERRITE BEADS FERRITE BEADS BEADS CORE BEADS CORE EMI FILTER EMI FILTER			
	TU1001 X1101 X1501 Y1612-13	QAU0276-001 CE42546-001Z QAX0549-001Z NCF21CZ-105X	TUNER CRYSTAL CRYSTAL C CAP.	1µF	16V	Z

#### ■POWER & DEF. P.W. BOARD ASS'Y

	■POWER & DEF. P.W. BOARD ASS'Y			
Δ	Symbol No.	Part No.	(SMF-240 Part Name	<b>2A-U2)</b> Description
_	•	STOR		
	R2401-02 R2403 R2404 R2405 R2406 R2407-08 R2409 R2410	QRE141J-562Y QRE141J-222Y QRX01GJ-1RO QRL029J-151 QRE141J-222Y QRX01GJ-1R5 QRE141J-823Y QRE141J-103Y	C R C R MF R OM R C R G R C R	5.6kΩ 1/4W J 2.2kΩ 1/4H J 1.0Ω W J 150Ω 2H J 2.2kΩ 1/4W J 1.5Ω W J 82kΩ 1/4W J 10kΩ 1/4W J
	R2421 R2422 R2461 R2462 R2463 R2464 R2468 R2469	QRE141J-103Y QRE141J-274Y QRGQ29J-820 QRE141J-473Y QRA14CF-9101Y QRX01GJ-2R7 QRE141J-102Y QRE141J-272Y	C R C R OM R C R MF R MF R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	R2471 R2472 R2473 R2474 R2475 R2476 R2477 R2478	QRE141J-391Y QRA14CF-1002Y QRE141J-473Y QRE141J-103Y QRE141J-102Y QRE141J-102Y QRE141J-563Y QRE141J-333Y	C R MF R C R C R C R C R C R	3900 1/4W J 10k0 1/4W F 47k0 1/4W J 10k0 1/4W J 1k0 1/4W J 1k0 1/4W J 56k0 1/4W J 33k0 1/4W J
	R2501 R2502 R2503 R2504 R2505 R2506 R2521 R2522	QRE141J-471Y QRE141J-123Y QRE121J-152Y QRL039J-372 QRE121J-5R6Y QRE121J-471Y QRE141J-223Y	C R C R C R OM R C C R C R C R	470Ω 1/4W J 12kΩ 1/4W J 1.5kΩ 1/2W J 2.7kΩ 3W J 3.3kΩ 3W J 5.6Ω 1/2W J 470Ω 1/2W J 22kΩ 1/4W J
<u>A</u>	R2523 R2524 R2525 R2541 R2542 R2543 R2551 R2552	QRE141J-103Y QRC121K-152Z QRL039J-103 QRE141J-182Y QRE141J-222Y QRE121J-272Y QRZ9022-R47 QRZ9022-R47	C R COMP.R OM R C R C R F R F R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	R2581 R2582 R2583 R2584 R2585 R2586 R2587 R2588	QRF154K-4R7 QRE141J-681Y QRE121J-682Y QRE141J-183Y QRE141J-222Y QRA14CF-7501Y QRA14CF-2101Y QRE141J-103Y	UNF R C R C R C R C R MF R MF R C R	4.7Ω 15W K 680Ω 1/4W J 6.8kΩ 1/2W J 18kΩ 1/4W J 2.2kΩ 1/4W J 7.5kΩ 1/4W F 2.1kΩ 1/4W F 10kΩ 1/4W J
⚠	R2591 R2901 R2902 R2903 R2904 R2905-06 R2908-09 R2910	QRZ9017-4R7 QRE121J-331Y QRF054K-3R3 QRF104K-3R9 QRL039J-683 QRE121J-474Y QRL039J-823 QRZ9017-100	F R C R UNF R UNF R OM R C R OM R F R	4.7 Ω 1/4W J 330Ω 1/2W J 3.3Ω 5W K 3.9Ω 10W K 68ΚΩ 3W J 470ΚΩ 1/2W J 82ΚΩ 3W J 10 Ω 1/4W K
	R2911 R2914 R2915 R2916 R2931 R2932 R2933 R2944	QRE121J-152Y QRM059J-R10 QRE121J-681Y QRE121J-332Y QRE141J-1R0Y QRE141J-1R5Y QRE141J-1R8Y QRE141J-103Y	C R MP R C R C R C R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Δ	Symbol No.	Part No.	Part Name	Description
	RESI	STOR		
	R2945 R2946 R2951 R2952 R2953 R2954 R2981 R2982	QRE141J-563Y QRE141J-103Y QRE121J-102Y QRL089J-223 QRE141J-474Y QRE141J-103Y QRE141J-153Y QRE141J-102Y	C R C R C R OM R C R C R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Δ	R2991	QRZ9046-825Z	C R	8.2MΩ 1/2W K
_	CAPA	CITOR		
	C2404 C2405 C2406 C2408 C2409-10 C2411 C2414 C2421	QCZ0120-104Z QDC31HJ-820Z QETMLVM-108 QETMLVM-337Z QFV71HJ-474Z QFLC2AJ-104Z QCB31HK-682Z QETMLHM-105Z	C CAP. C CAP. E CAP. E CAP. MF CAP. M CAP. C CAP. E CAP.	0.1µF 25V Z 82pF 50V J 1000µF 35V M 330µF 35V M 0.47µF 50V J 6800pF 50V K 1µF 50V M
	C2461 C2462-63 C2464 C2465 C2466 C2467 C2488 C2470	QEZQ414-226 QFM72DJ-152Z QCZ012O-104Z QETMLHM-106Z QFP3HJ-272Z QFLCHJ-102Z QETMLEM-476Z QCS31HJ-470Z	E CAP. M CAP. C CAP. E CAP. PP CAP. M CAP. E CAP. C CAP.	22 <sub>H</sub> F 50V M 1500F 200V J 0.1 <sub>H</sub> F 25V Z 10 <sub>H</sub> F 50V M 2700F 50V J 1000F 50V J 47 <sub>H</sub> F 25V M 47 <sub>P</sub> F 50V J
<u>A</u>	C2471 C2501 C2502 C2503 C2521 C2522 C2523 C2524	QFLCIHJ-103Z QCB32HK-331Z QFM72DK-103 QFV71HJ-224Z QFZ0122-112 QFZ0200-113 QFM72DK-393 QFP32JJ-223	M CAP. C CAP. M CAP. MF CAP. MPP CAP. MPP CAP. MPP CAP. PP CAP.	0.01 <sub>H</sub> F 50V J 330¢F 500V K 0.01 <sub>M</sub> F 200V K 0.22 <sub>H</sub> F 50V J 1100¢F1.8kVH±3% 0.011 <sub>M</sub> F1.5kVH±3% 0.039 <sub>M</sub> F 200V K 0.022 <sub>M</sub> F 630V J
	C2526 C2527 C2529 C2530 C2531 C2532 C2533 C2541	QFZ0197-184 QFZ0197-124 QFZ0197-154 QCB32HK-561Z QFZ0194-534 QETM2CM-227 QETM2CM-227 QETM2EM-475Z QENC1HM-105Z	MPP CAP. MPP CAP. MPP CAP. C CAP. MP CAP. E CAP. E CAP. E CAP.	0.18µF 250V J 0.12µF 250V J 0.15µF 250V J 560PF 500V K 0.53µF 250V J 220µF 160V M 4.7µF 250V M
	C2551 C2552 C2553 C2554 C2555 C2556 C2558 C2559	QCB32HK-152Z QETMLCM-108Z QCB32HK-152Z QETMLCM-108Z QCB32HK-102Z QETMEM-106Z QETMLCM-477Z QETMLCM-477Z QEHRLCM-227Z	C CAP. E CAP. C CAP. E CAP. E CAP. E CAP. E CAP. E CAP. E CAP.	1500pF 500V K 1000uF 16V M 1500pF 500V K 1000uF 16V M 1000pF 500V K 10uF 250V M 470uF 16V M 220uF 16V M
<u>Å</u> <u>Å</u>	C2581 C2582 C2583 C2584 C2901 C2902 C2903 C2904	QETNLCM-107Z QETNLEM-476Z QETNLAM-106Z QETNLAM-227Z QFZ9072-473 QFZ9072-104 QFZ9072-473 QCZ9054-472	E CAP. E CAP. E CAP. E CAP. MM CAP. MF CAP. MM CAP. C CAP.	100 F 16V M 47 F 25V M 10 F 100V M 220 F 10V M 0.047 FAC275V K 0.47 FAC275V K 4700 FAC25V Z
	C2905 C2906 C2907 C2908	QCZ9054-472 QCZ9054-472 QEZ0199-227 QCB32HK-103	C CAP. C CAP. E CAP. C CAP.	4700pFAC250V Z 4700pFAC250V Z 220μF 400V M 0.04μF 500V K

Δ	Symbol No.	Part No.	Part Name	Description
Δ	C2909 C2910 C2911 C2912 C2914 C2915 C2916 C2931	0CZ0840-391 QETMIHM-476Z QCB31HK-102Z QCZ0340-561 QCB31HK-471Z QFLC1HJ-104Z QCB32HK-152Z QCZ90 54-472	C CAP. E CAP. C CAP. C CAP. M CAP. C CAP.	390pF 2kV K 47 <sub>H</sub> F 50V M 1000FF 50V K 560pF 2kV K 470pF 50V K 0.1 <sub>H</sub> F 50V J 1500pF 500V K 4700pFAC250V Z
<b>A</b>	C2932 C2933 C2934 C2941 C2942 C2951 C2952 C2955	QC79054-472 QC79054-472 QETM2GM-226 QTMLCM-4777 QETNLAM-3377 QETNLAM-3377 QETNLCM-1082 QETMLVM-228	C CAP. C CAP. E CAP.	4700pFAC250V Z 4700pFAC250V Z 22μF 400V M 470μF 16V M 330μF 10V M 220μF 160V M 1000μF 16V M 2200μF 35V M
Δ	C2956 C2957 C2959 C2960 C2972-73 C2974 C2975 C2991	QETNLAM-108Z QETNLAM-228Z QFV71HJ-684Z QCZ0325-821 QETNLAM-477Z QETNDJM-228Z QETNLAM-228Z QCZ9079-222	E CAP. E CAP. MF CAP. C CAP. E CAP. E CAP. C CAP. C CAP.	1000µF 10V M 2200µF 10V M 0.68µF 50V J 820pF 2kV K 470µF 10V M 2200µF 6.3V M 2200µF 10V M 2200µFAC250V M
Δ	C2993	QCZ9079-471	C CAP.	470pFAC250V K
	TRAN	ISFORME	ER	
<u>A</u>	T2501 T2551 T2901	QQR1111-001 QQH0126-001 QQS0156-001	DRIVE TRANSF H.V.TRANSF. SWITCH.TRANSF.	
	COIL	_		
	L2461 L2462 L2521 L2522 L2551 L2552 L2901-02 L2908	QQR1195-001 QQL2028-272 QQL2031-180 QQR1191-002 QQL2026-540 QQL2026-540 QQL401K-100Z QQR1200-001	CHOWE COIL CHOWE COIL CHOWE COIL LINEARITY COIL HEATER CHOKE COIL CHOWE COIL CHOWE COIL	22 <sub>µ</sub> H K
	L2951 L2959-60 L2961	QQLZ026-460 QQL26 AK-220Z QQL26AM-4R7Z	HEATER CHOKE COIL CHOKE COIL	22µН К
	DIOE	ÞΕ		
	D2402 D2471 D2461 D2462 D2463 D2501 D2571 D2572	1SR35-400A-T2 1SS133-T2 RGP10J-5025-T3 1SS133-T2 1SS133-T2 1SS81-T5 V11CA-C1 FMV-3FU-F1	SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE SI. DIODE	
	D2523 D2525 D2541 D2542 D2551 D2552 D2553 D2582	MTZ J22B-T2 RGP10J-5025-T3 RGP10J-5025-T3 MTZ J3. 9B-T2 RGP10J-5025-T3 RGP10J-5025-T3 RH15-T3 MTZ J7. 5B-T2	ZENER DIODE \$1.0100E \$1.010DE ZENER DIODE \$1.010DE \$1.010DE \$1.010DE \$1.010DE \$1.010DE	
Δ	D2583 D2584 D2901 D2902	MTZJ7.5S-T2 RGP10J-5025-T3 D3SB60 RG1C-LFA1	ZENER DIODE SI.DIODE BRIDGE DIODE SI.DIODE	

Δ	Symbol No.	Part No.	Part Name	Description
	DIOD	ÞΕ		
	D2904 D2905 D2906 D2907	EU2A-T2 1SS133-T2 MTZJ27B-T2 1SS133-T2	SI.DIODE SI.DIODE ZENER DIODE SI.DIODE	
Δ	D2908 D2910 D2911 D2931 D2945 D2951 D2952 D2953	1\$\$133-T2 MTZJ158-T2 1\$\$133-T2 \$1WB/A/60-4101 1\$\$133-T2 RU44M-LFT2 RGP10J-5025-T3 RU44M-LFT2	SI.DIODE ZEMR DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	
	D2955 D2956 D2958 D2959 D2960 D2961 D2981 D2984	RU3YX-LFC4 RGP10J-5025-T3 MTZJ33B-T2 RU3YX-LFC4 1SR124-400A-T2 15S133-T2 1SS133-T2	SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	
	D2985	155133-T2	SI.DIODE	
	TRAN	IS I STOF	₹	_
Δ	02421 02422 02461 02462-63 02464 02501 02521 02581	DTC124ESA-T 2SC1740S/QR/-T 2SK2459N-F54 2SC1740S/QR/-T 2SA933AS/QR/-T BSN804-T 2SC5552-RL 2SA1208/ST/Z1-T	DIGI.TRANSISTOR SI.TRANSISTOR F.E.T. SI.TRANSISTOR SI.TRANSISTOR F.E.T. SI.TRANSISTOR F.E.T. SI.TRANSISTOR	н. ОИТ
	Q2582 Q2583 Q2941-42	DTC144ESA-T 2SC1740S/QR/-T 2SC1740S/QR/-T	DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
	IC			_
Δ	IC2401 IC2461 IC2551 IC2901 IC2902 IC2951 IC2954 IC2955	AN5523 BA10393 BA127 STR-F6667B/F7 QAL0425-001 SE140N BA05T PQ3R013	I.C (M) I.C (MONO-ANA) I.C (MONO-ANA) I.C (MOREND) P.W.B. MODULE I.C (HYBRID) I.C (MONO-ANA) I.C (MONO-ANA)	
	OTHE	RS		
Δ Δ Δ	CN2004-06 CN2014 CP2951 CP2952 CP2953 CP2955 K2401 K2522-24	QGB1506M1-16 QGA2501C5-06Z ICP-M75-Y ICP-M75-Y ICP-M75-Y QQR0621-002Z CE41832-001	CONNECTOR EH POST HEADER I.C.PROTECT I.C.PROTECT I.C.PROTECT I.C.PROTECT I.C.PROTECT BEADS CORE LEAD CORE	
Δ Δ Δ	K2901 LF2901 PC2901 RY2931 TH2901	QQR0679-001 QQR1095-001 PC123FY2 QSK0099-001 QAD0133-9R0	FERRITE BEADS LINE FILTER I.C(PH.COUPLER) RELAY P.THEMISTOR	

# ■CRT SOCKET P.W. BOARD ASS'Y

				(SMF-3402A-U2)
<u></u> Sym	bol No.	Part No.	Part Name	Description
R	ESI	STOR		
R31 R31 R31 R31 R31 R31 R31	02 03 04 05 06 07	NRSA63J-223X NRSA63J-681X NRSA63J-101X NRSA63J-822X NRSA63J-102X NRSA63J-221X NRSA63J-261X NRSA63J-153X	MG R MG R MG R MG R MG R MG R MG R	22kΩ 1/16W J 680Ω 1/16W J 100Ω 1/16W J 8.2kΩ 1/16W J 1kΩ 1/16W J 220Ω 1/16W J 560Ω 1/16W J 15kΩ 1/16W J
R31 R31 R31 R31 R31 R31 R31	11 12 13-14 15 16 17	NRSA63J-222X NRSA63J-471X NRSA63J-272X NRSA63J-152X NRSA63J-390X QRG0IGJ-101 NRSA63J-331X NRSA63J-122X	MG R MG R MG R MG R MG R OM R MG R	2.2kg 1/16W J 47Qg 1/16W J 2.7kQ 1/16W J 1.5kQ 1/16W J 39Q 1/16W J 100Q W J 33Qg 1/16W J 100Q 1W J 33Qg 1/16W J
R31 R31 R31 R31 R31 R31 R31	24 25 26 27 28 29 - 30	QRE121J-563Y NRSA63J-470X QRE121J-563Y NRSA63J-470X NRSA63J-122X NRSA63J-390X QRE121J-2R7Y NRSA63J-390X	C R MG R C R MG R MG R MG R C R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R32	33 34 04-06 11 23-25 27	NRSA63J-121X QRLQ29J-681 QRZ9021-561 NRSA63J-272X NRSA63J-154X NRSA63J-272X NRSA63J-103X NRSA63J-272X	MG R OM R F R MG R MG R MG R MG R MG R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
R32	40 41 42	QRL029J-104-F NRSA63J-332X QRC121K-152Z QRZ0107-474Z QRC121K-102Z QRZ0107-105Z NRSA63J-103X NRSA63J-102X	OM R MG R COMP.R C R MF R C R MG R MG R	$\begin{array}{cccc} 100 \text{k}\Omega & 2\text{M} & \text{J} \\ 3.3 \text{k}\Omega & 1/16\text{M} & \text{J} \\ 1.5 \text{k}\Omega & 1/2\text{M} & \text{K} \\ 470 \text{k}\Omega & 1/2\text{M} & \text{K} \\ 1 \text{k}\Omega & 1/2\text{M} & \text{K} \\ 1.0 \text{M}\Omega & 1/2\text{M} & \text{K} \\ 10 \text{k}\Omega & 1/16\text{M} & \text{J} \\ 1 \text{k}\Omega & 1/16\text{M} & \text{J} \end{array}$
R33	06	NRSA63J-562X QRE121J-474Y NRSA63J-223X NRSA63J-562X NRSA63J-392X NRSA63J-0ROX	MG R C R MG R MG R MG R MG R	5.6k2 1/16W J 470k2 1/2W J 22k2 1/16W J 5.6k2 1/16W J 3.9k2 1/16W J 0.02 1/16W J
C	APA	CITOR		
C31 C31 C31 C31 C31 C31 C31	03 04 06 07 10 11	NDC31HJ-6R0X NDC31HJ-390X QCB31HK-103Z QETNLHM-335Z QETNLCM-107Z QETNCM-106Z QCB32HK-472Z QETNCM-106Z	C CAP. C CAP. E CAP. E CAP. E CAP. C CAP. E CAP. C CAP.	6pF 50V J 39pF 50V J 0.01µF 50V K 3.3µF 50V M 100µF 16V M 10µF 160V M 4700pF 500V K 10µF 160V M
C31 C31 C32 C32 C32	16-17	QCB32HK-472Z QETNLAM-107Z QETNLAM-337Z NDC31HJ-221X NDC31HJ-100X NCF31CZ-104X QETNLEM-476Z QFKQEK-104Z	C CAP. E CAP. C CAP. C CAP. C CAP. C CAP. MM CAP.	4700pF 500V K 100µF 10V M 330µF 10V M 220pF 50V J 10pF 50V J 0.1µF 16V Z 47µF 25V M 0.1µF 25V K
C32	13-15	NDC31HJ-181X	C CAP.	180pF 50V J

∆ Symbol No	. Part No.	Part Name	Description
CAF	PACITOR		
C3218 C3219 C3221 C3302	QETN1CM-107Z QETN2EM-336 QFZ0097-223 QETN2EM-106Z QETN1HM-476Z	E CAP. E CAP. MM CAP. E CAP. E CAP.	100µF 16V M 33µF 250V M 0.022µF 1250V K 10µF 250V M 47µF 50V M
COI	L		
L3101 L3204	QQL244K-5R6Z QQL26AJ-102Z	COIL	5.6µH K 1mH J
DIC	DDE		
D3101-02 D3103 D3104 D3204-06 D3207 D3208-10 D3211 D3301	MA111-X RH15-T3 RH15-T3 EU010-T2 RM2C-LFA1 15R124-400A-T2 MA3062/M/-X MA111-X	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE SI.DIODE	
D3303	MA111-X	SI.DIODE	
TRA	NSISTO	R	
Q3101 Q3102 Q3103 Q3104 Q3105 Q3108 Q3109 Q3301	2SC2412K/QR/-X 2SA1037AK/QR/-X 2SC1906-T 2SC2412K/QR/-X 2SC1627A/QY/-T 2SA1837 2SC4793 2SA1037AK/QR/-X	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	
IC			
IC3201-03	TDA6111Q	I.C(MONO-ANA)	
OTH	IERS		
K3101 K3103-04 K3105 SG3201-03 ∆ SK3001 W3003 W3022	CE41492-001Z CE41492-001Z QQR0621-002Z QAF0056-501Z QNZ0464-001 QQR0679-001 QQR0679-001	CHOKE COIL CHOKE COIL BEADS CORE VARISTOR C.R.T.SOCKET FERRITE BEADS FERRITE BEADS	

	FRONT	CONTR	rol P.W. Bo <i>l</i>	ARD ASS'Y
				(SMF-8402A-U2
A	Symbol No	Part No	Part Name	Descripti

-	FRONT CONTROL P.W. BOARD A33 1					
Δ	Symbol No.	Part No.	Part Name	SMF-8402A-U2) Description		
	RESI	STOR				
	R8001-02 R8005 R8008 R8010 R8012-13 R8021-22 R8035 R8039	QRE121J-271Y NRSA63J-221X NRSA63J-102X NRSA63J-103X NRSA63J-103X NRSA63J-102X QRE121J-151Y NRSA63J-331X	C R MG R MG R MG R MG R MG R C R MG R	$\begin{array}{cccc} 27Q_{\Omega} & 1/2\text{W} & \text{J} \\ 22Q_{\Omega} & 1/16\text{W} & \text{J} \\ 1\text{M}_{\Omega} & 1/16\text{W} & \text{J} \\ 10\text{KP} & 1/16\text{W} & \text{J} \\ 10\text{KP} & 1/16\text{W} & \text{J} \\ 11\text{KP} & 1/16\text{W} & \text{J} \\ 11\text{KP} & 1/16\text{W} & \text{J} \\ 33Q_{\Omega} & 1/16\text{W} & \text{J} \\ \end{array}$		
	CAPA	CITOR				
⚠	C8001-02 C8004 C8005 C8010-11 C8019 C8021 C8022 C8901	NCB31HK-103X NCB31CK-104X NDC31HJ-680X NCB31HK-472X QETNLCM-107Z NCB31CK-104X QETNLEM-476Z QFZ9072-474	C CAP. C CAP. C CAP. C CAP. E CAP. E CAP. MF CAP.	0.01µF 50V K 0.1µF 16V K 68pF 50V J 470QpF 50V K 100µF 16V M 0.1µF 16V K 47µF 25V M 0.47µFAC275V K		
	COIL	_				
	L8001 L8002-03 L8010-11 L8012	QQR0716-001Z QQL244K-5R6Z QQL244K-270Z QQR0716-001Z	LEAD CORE COIL PEAKING COIL LEAD CORE	5.6µН К		
	DIOD	ÞΕ				
	D8010 D8011 D8014 D8018	SPR-39MVWF MA111-X MA3068/M/-X MA3033-X	L.E.D. SI.DIODE ZENER DIODE ZENER DIODE			
	TRAN	SISTOR	₹			
	08002 08003-04	DTC124EKA-X DTA124EKA-X	DIGI.TRANSISTOR DIGI.TRANSISTOR			
	IC					
	IC8001	GP1U281Q	IFR DETECT UNIT			
	ОТНЕ	RS				
҈∆	F8901 J8001 J8003 LC8002 LF8901	CEMG002-001Z LC30596-001B-C CM35921-005-H QMF51D2-3R15J1 QMS3004-C01 QNZ0453-001 NQR0169-001X QQR1095-001	FUSE CLIP L.E.D.HOLDER CDS HOLDER FUSE HEADPHONE JACK JACK EMI FILTER LINE FILTER	3.154		
⚠	\$8001 \$8002 \$8003 \$8901	0SW0619-003Z 0SW0619-003Z 0SW0619-003Z QSW0824-001	PUSH SWITCH PUSH SWITCH PUSH SWITCH PUSH SWITCH	MENU CH DOWN CH UP MAIN POWER		

#### ■ MICOM P.W. BOARD ASS'Y (SMF0M401A-U2)

Refer to PARTS LIST in page 42 for this P.W . board.

#### ■ AV SW P.W. BOARD ASS'Y (SMF0S401A-U2)

Refer to PARTS LIST in page 43 for this P.W. board.

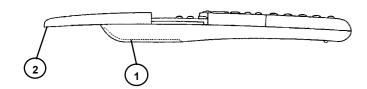
#### ■ 100Hz P.W. BOARD ASS'Y (SMF0Z405A-U2)

Refer to PARTS LIST in page 44 for this P.W. board.

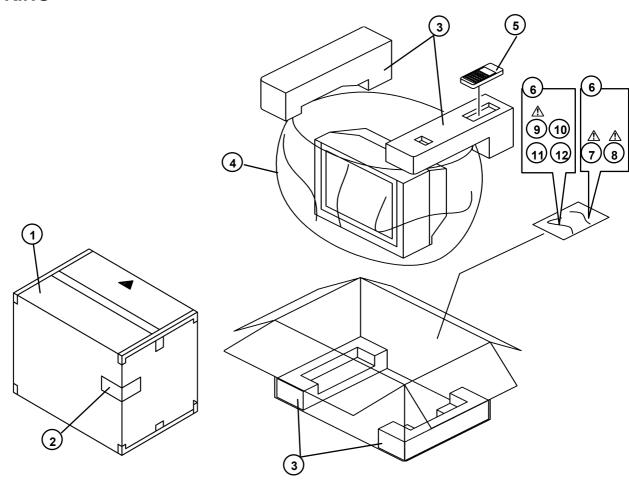
# **REMOTE CONTROL UNIT PARTS LIST**

AV32H20I	EUS / AV28H20	EUS (RM-C	54H-1C)
⚠ Ref.No.	Part No.	Part Name	Description
1 2	2 AA 03 0 73 3 2 AA 03 0 73 2	BATTERY COVER SLIDE COVER	

AV28H20EUB (RM-C50-1C)						
⚠ Ref.No.	Part No.	Part Name	Description			
1 2	2 AA 02 7 7 7 0 2 AA 02 7 7 6 1	BATTERY COVER SLIDE COVER				



## **PACKING**



# **PACKING PARTS LIST**

AV32H20EUS						
⚠ Ref.No.	Part No.	Part Name	Description			
1 2 3 4 5 6 介 介 水 8	A EM 10 0 2 - E7 0 - E A EM 10 5 2 - 06 3 - E L C 10 3 8 4 - 00 2 C - U A EM 10 4 7 - A0 2 - E R M - C 5 4 H - 1C A EM 30 2 1 - 00 3 A - E L CT 11 4 2 - 00 1 A - U L CT 11 4 3 - 00 1 A - U	PACKING CASE EURO LABEL CUSHION ASSY POLY BAG REMOCON UNIT POLY BAGS INST.BOOK INST.BOOK	4pcs in 1set (x2)			
⚠ 9 10 11 12	L CT 11 4 4 - 00 1 A - U BT - 54 0 13 - 1 E A EM 10 7 5 - 00 1 A - U 2 83 2H 2 0E U - H SA E	INST.BOOK WARRANTY CARD X-RAY CARD S.DIAGRAM	[ITALY EDITION]			

AV28H20EUS / AV28H20EUB						
⚠ Ref.No.	Part No.	Part Name	Description			
1 2 2 3 4 5 5	AEM 1002-B68-E AEM 1052-064-E AEM 1052-096-E LC10722-002A-U AEM 1047-A02-E RM-C54H-IC RM-C50-1C AEM 3021-003A-E	PACKING CASE EURO LABEL EURO LABEL CUSHION ASSY POLY BAG REMOCON UNIT REMOCON UNIT POLY BAGS	[AV28H20EUS] [AV28H20EUB] 4pcs in 1set [AV28H20EUS] [AV28H20EUB] (x2)			
A 7 A 8 A 9 10 11 12	LCT1142-001A-U LCT1143-001A-U LCT1144-001A-U BT-54013-1E AEM1073-001A-U 2832H20EU-HSAE	INST.BOOK INST.BOOK INST.BOOK WARRANTY CARD X-RAY CARD S.DIAGRAM	[ITALY EDITION]			





VICTOR COMPANY OF JAPAN, LIMITED
HOME AV NETWORK BU SINESS UNIT 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa-prefecture, 221-8528, Japan

